SMAX
Powered by EDiMAX

www.smax.com.tw

AV1 2MP IP66 Small Vandal Dome Camera

ONVIF S

User Manual

Ver 1.2

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Chapter I.

Overview

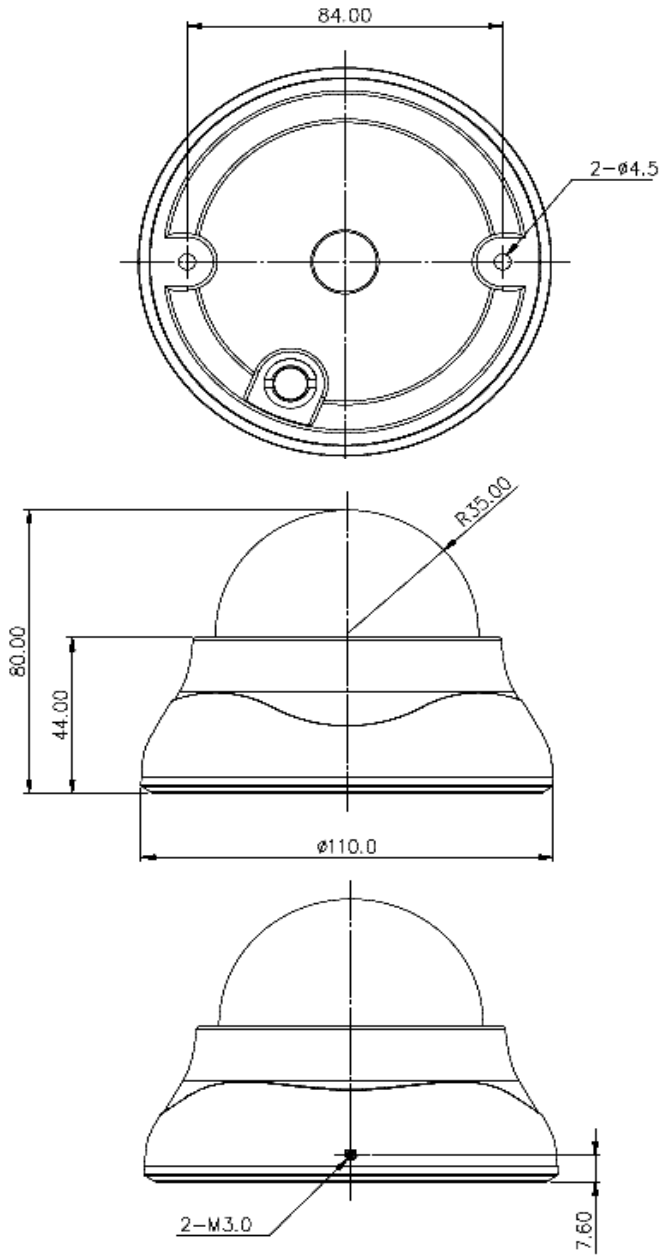
1.1. Read Before Use

This network camera is a professional equipment for surveillance purpose. Please comply with each national laws to prevent from any relevant privacy violations before use.

In order to operate this network camera, it require a basic knowledge of network structure. For further use of project application, it requests an advance level of knowledge in lens optics selection, network structure design, storage planning and software capability.

This product service may be different since the diversity of distributors. We suggest to purchase SMAX product from SMAX direct distributors or system integrators to get the most complete after service.

Please first check the package contents are complete with nothing missing. Then, carefully read through all attentions and instructions before use.



1.2. Physical Description

1.2.1. Mechanical and hardware interface

AV1 is an internal built fixed lens network camera. It can be placed on the wall or ceiling. With its IP66/IK8 design, it is suitable to locate in a both indoor and outdoor environment where it needs to have vandal proof function.

AV1 accepts both POE or DC 12V as power supply. Please noted that the DC 12V adapter is an extra accessory which does not include in this package.

AV1 supports two ways audio function which can connect with an external speaker and microphone.

AV1 has micro SD/SDHC card slot built in for recording storage function.

MicroSD/SDHC Card Slot

Light Sensor

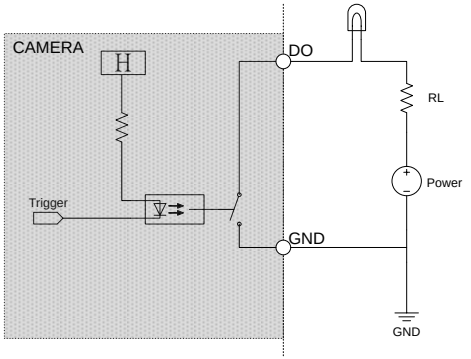
IR LED

1.2. Physical Description

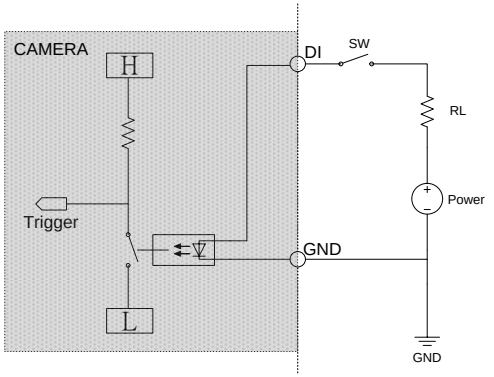
1.2.2. Digital Input (DI) & Digital Output (D0)

Item	Description
1	DO
2	GND
3	DI

Digital Input		
Pin	Notes	Specifications
	Trigger is “Off”, DO connect to GND Trigger is “On”, DO is floating	Max load: 30mA,30VDC



Digital Output		
Pin	Notes	Specifications
	DI is floating, trigger is “high” DI is high, trigger is “low”	Max current input: 30mA



Suggested Component Value:

Power(VDC)	RL(Ω)
3.3V	100Ω
5V	200Ω
12V	510Ω

1.3. Safety Instructions

Please carefully read through below safety instruction to prevent any damage of camera and person or any reason that will cause the invalid of the warranty.

- Network camera is a highly delicate electronic equipment. Please do not stumble or falling from high. It will cause damage to the camera.
- Please do not store the camera in a environment that the temperature or humidity are exceed camera's specification. Please also prevent from the direct expose of the sun light.
- Network camera is not a toy. Please prevent from the use of the child for any accident possibility.
- Please be careful when operate this network camera to prevent from any possibility that cause the device or components to invade your body.
- Please do not disassemble the camera to prevent from any abnormal function or operation.
- When place the camera in a high humidity or wet environment, please select the IP66/67 level products. Or else, please pus the camera in a outer housing box to prevent from damage.
- Please do not put any wire or cable within the camera device to prevent from damage.
- Cause of heat is a normal situation when operate network camera, please prevent direct contact when the camera is in use for a while.
- Please do not attach DC/AC power directly to the camera's DI/DO port.
- Please check the correct direction when insert the SDHC card into camera device.
- Please contact your sales channel or find a regional SMAX distributor for any warranty issues.

1.4. Package Contents

Description	Qty
Network Camera	1
Tools package (Screw Kit…etc.)	1
CD: A. Software: SMAX Finder x 1 SMAX VMS64 x 1 B. Doc: SMAX All Products Datasheet, User Manual, Quick Installation Guide	1

Network Camera

CD

1.5. EMC(Electromagnetic Compatibility)

FCC Statement

This device compiles with FCC Rules Part 15. Operation is subject to the following two conditions.
(1.) This device may not cause harmful interference, and
(2.)This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

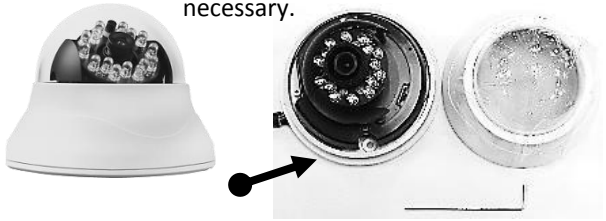
Chapter 2.

Installation

2.1. Installation

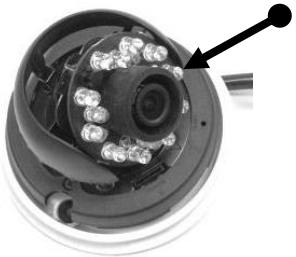
Please follow below instructions to setup your network camera.

Setup 1. Please remove the front cover by using screw driver from the tools package. And insert micro SD card if necessary.



Setup 2. Please fix the camera on the wall or ceiling with supplied screws. Make sure they are tightly attached.

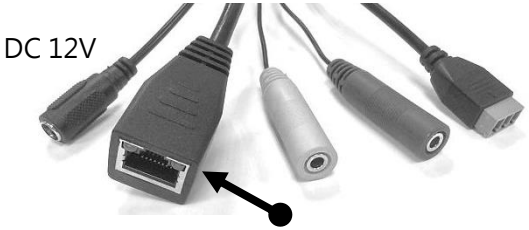
Setup 3. Please adjust the tilt angle and focus as your desire.



Setup 4. Please connect this network camera to a *PoE switch, PoE injector, or DC 12V adapter. Make sure all connection is stable .

＊. The network camera supports both PoE power or DC 12V adapter

Setup 5. Please connect the network cable to network camera.



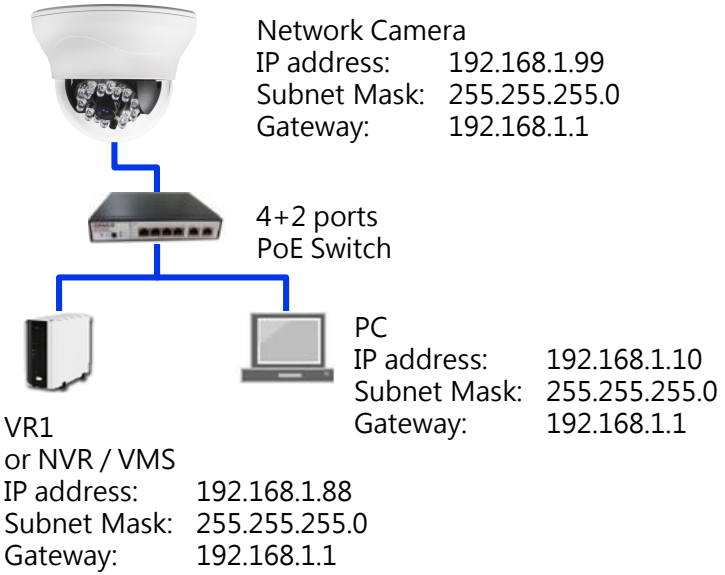
Setup 6. Please re-mount the cover and tight it up.

Setup 7. Please make sure the network camera cover must keep closed and the network cable output is at correct location.

2.2. SMAX Finder Installation

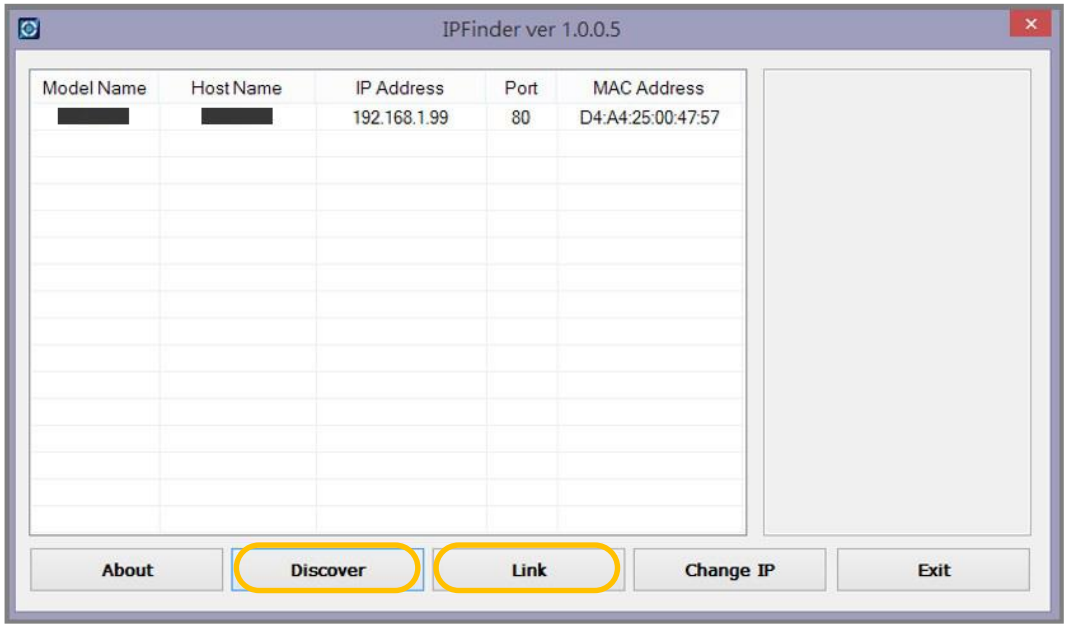
Basic structure of a network camera setting is as shown on the right picture:

（In a normal application, it only needs to be within a local LAN structure to meet the SMB surveillance requirement.）



SMAX Finder Installation：

Please read the CD from the package content. Then copy **SMAX Finder.exe** file to your personal PC**.** Run the program until the SMAX Finder windows display as shown on the right picture.



SMAX Finder procedure：

Step 1.

Press **Discover** button so the program will search all SMAX camera's IP within the local LAN.

Step 2.

Choose a specific camera, then press **Link** button. The program will run the default browser to set up camera connection to its web UI access page.

Notification:

SMAX camera default IP setting is DHCP mode.

Default IP address is **192.168.1.99.**

Default username and password is both **admin.**

2.3. Prepare to Access

Access procedure:

Step 1.

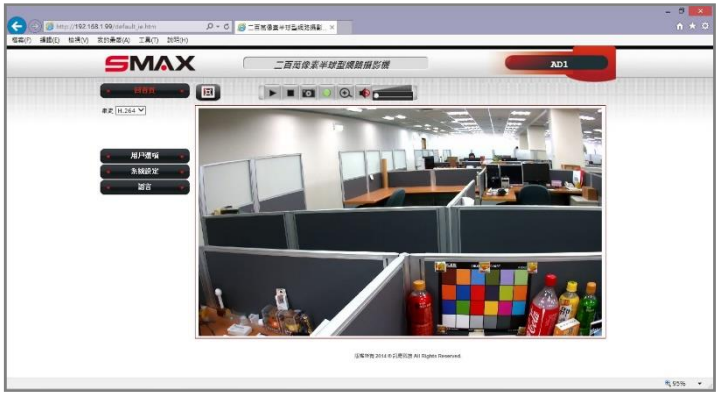
When link from SMAX Finder to the camera's web UI access page, please enter default username and password (ID: admin / PW: admin) for further access.

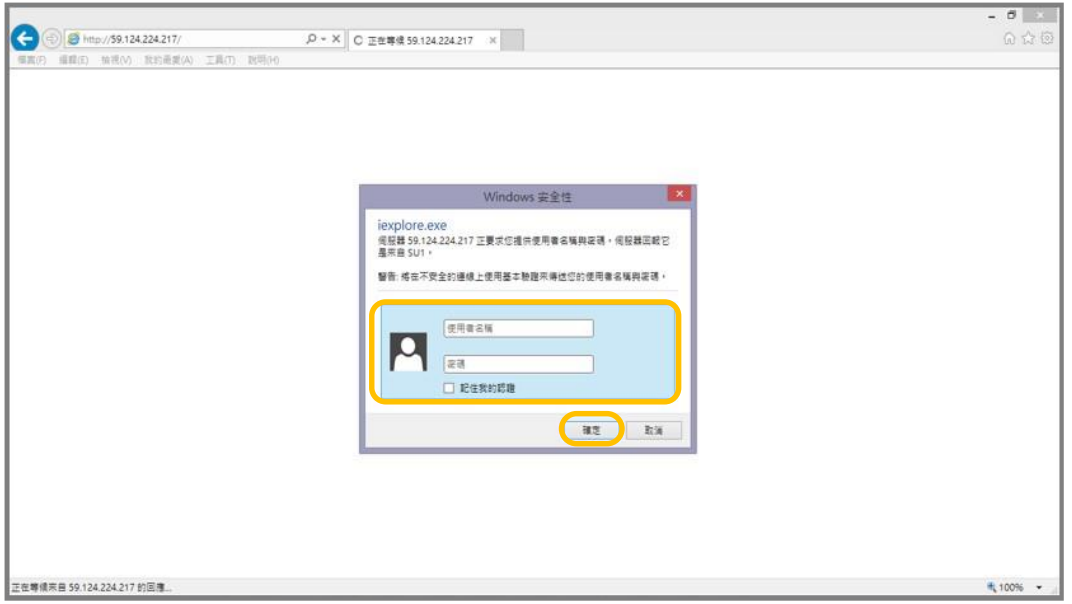
Step 2.

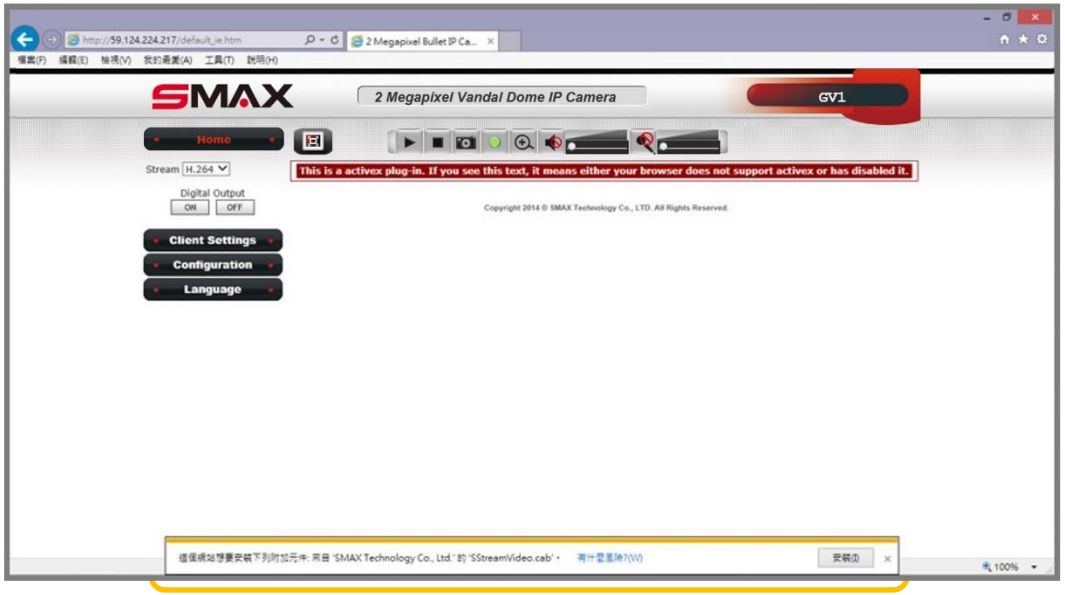
When first connect to a SMAX camera, it needs to install some plugin to your computer. Please follow instruction and press allowed to proceed installation process.

Step 3.

After installation of ActiveX plugin, you should be able to see the video stream from camera as shown on the below picture.







Accessing

3.1. Network Environment Setting

SMAX camera supports both intranet and internet structure. Hereby to supply different ways of network setting when SMAX camera is under internet environment structure.

A. True IP address setting
B. Transfer from UPnP router
C. PPPoE connection setting

Structure as shown on the right

Step 1.

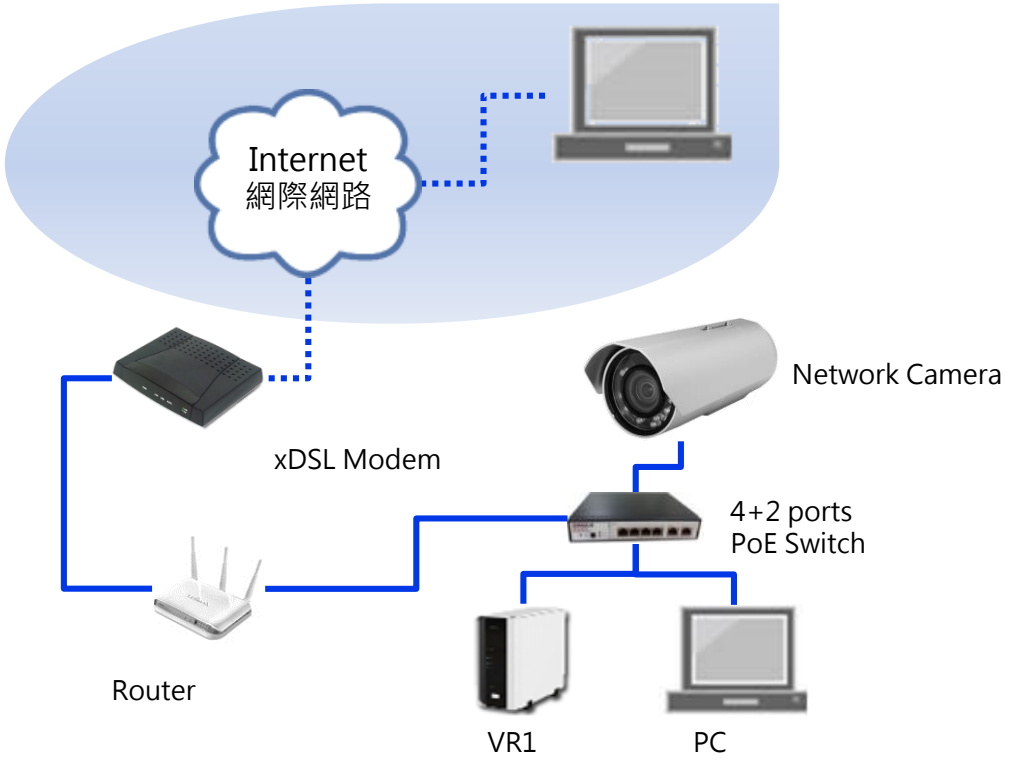
Please run the SMAX Finder and search the local LAN camera.

Step 2.

Please enter you static true IP address which provided by your ISP service vender. Then press enter.

Notification：

Please contact your ISP vender for further static true IP address setting or service.



Internet and Intranet setting structure illustration

Notification：

When you have the true IP address, you may set your network camera in static IP mode. Then you may use the internet browser by entering this static true IP address to access your network camera.

If your true IP address was set to your router, you may use the port forwarding function and turn on the UPnP function within your network camera to connect. This is the solution that solves the problem when a SMB surveillance project has lack of true IP address to manage. However, please noted that the performance of the camera will be strongly depends on the performance of the router. It may cause abnormal connecting due to this issue. <Please refer to 3.1. B. setting >

3.1. Network Environment Setting

A. True IP address setting

Step 1.

Please run the SMAX Finder and search for the camera within local LAN.

Step 2.

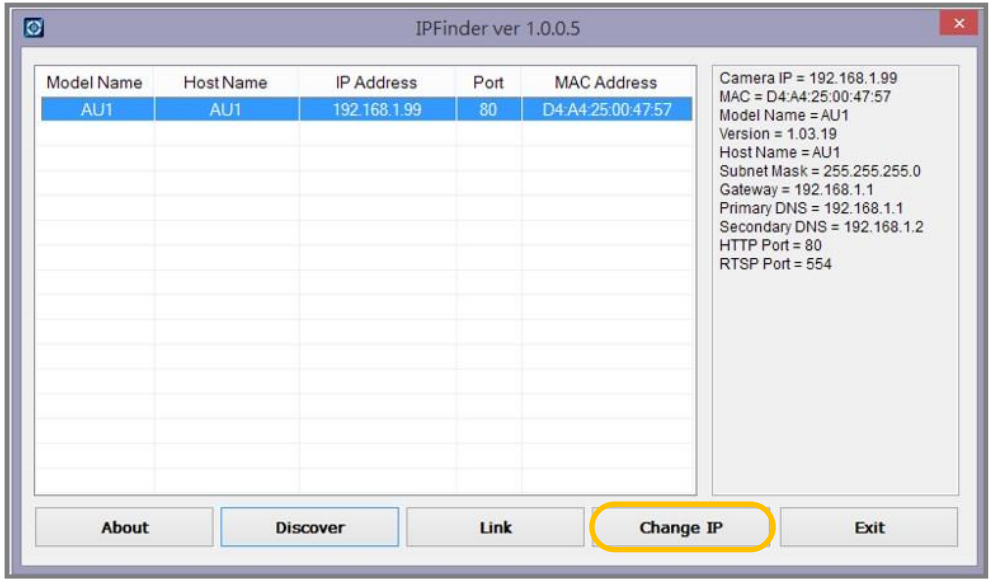
Select the camera for internet setting and click **Change IP** button.

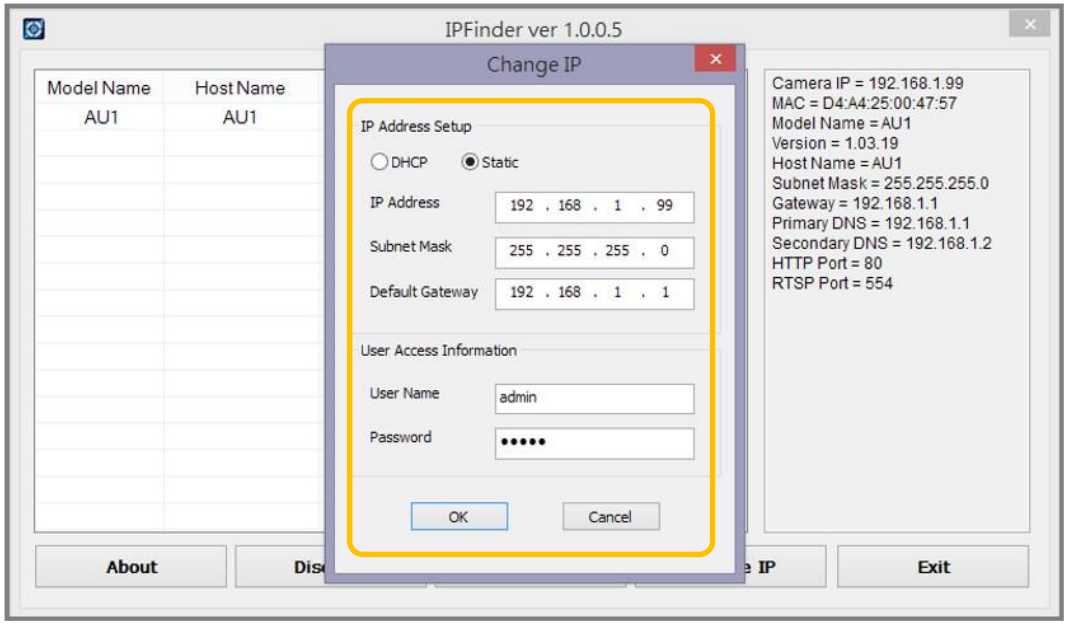
Step 3.

Select static mode and enter your true IP address, Subnet mask, Default gateway, and the username and password of the camera. Then press **OK** to finish setting. It will prompt below pop out to show the success message.

Notification：

Please contact your ISP vender for further static true IP address setting or service.





3.1. Network Environment Setting

A. Transfer from UPnP router

Step 1.

Please access to the camera's web UI page and select **Configuration** button.

Step 2.

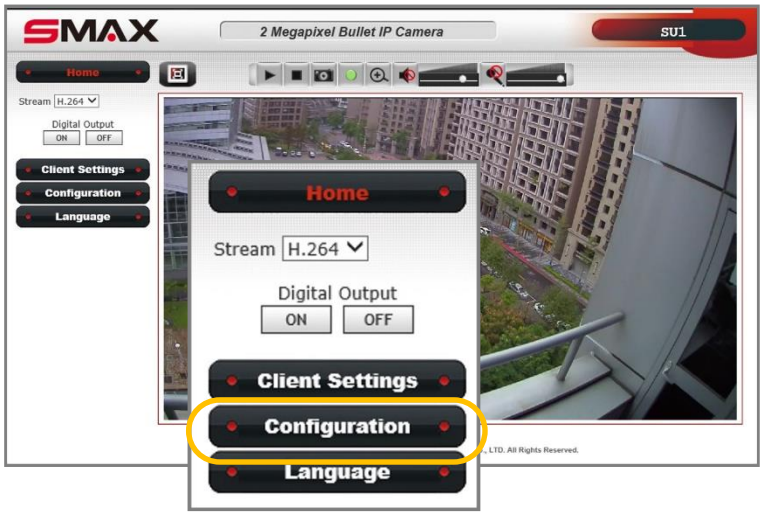
Select **Network** button.

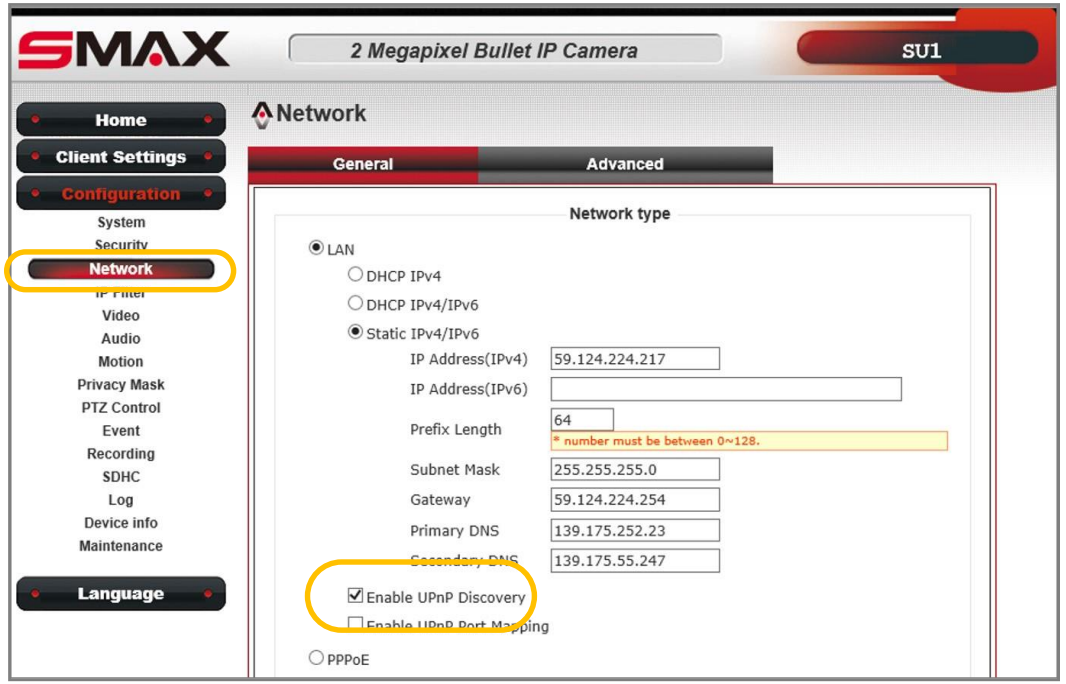
Step 3.

Please assign a static IP address of your local network. And enter your gateway address and DNS numbers of your router.

Step 4.

Please select **Enable UPnP Discovery** and **Enable UPnP Port Mapping.** Then press **Apply** button to finish setting.





Notification：

Network camera's UPnP function may have some compatible issue with router's UPnP function. For your router's further setting, please kindly refer to your router's instruction about Port Forwarding and UPnP setting.

3.1. Network Environment Setting

A. PPPoE connection setting

Step 1.

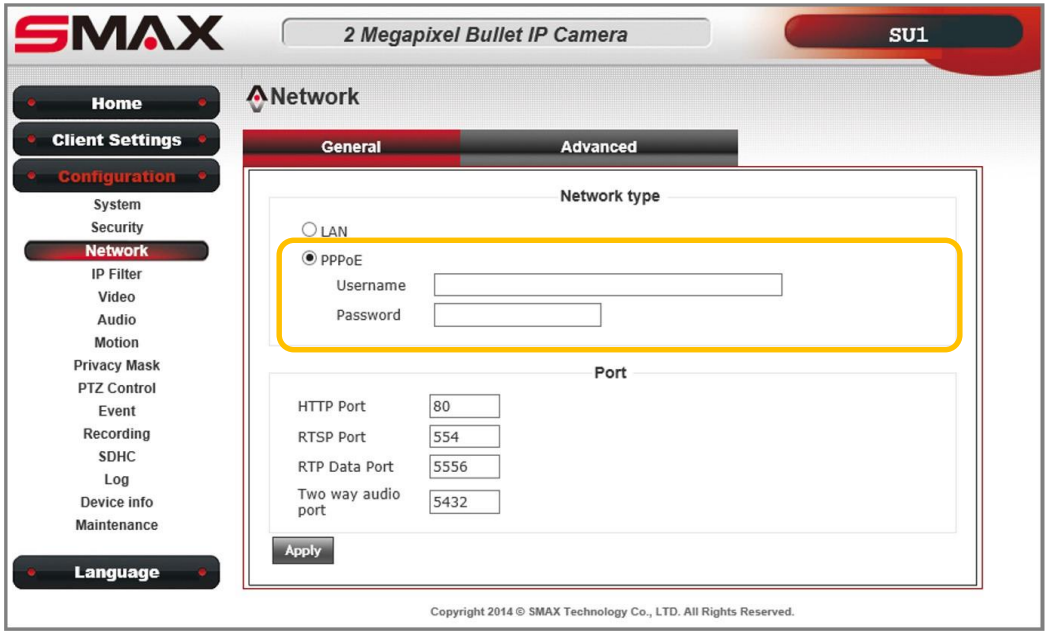
Please access to the camera's web UI page and select **Configuration** button.

Step 2.

Select **Network** button.

Step 3.

Please select **PPPoE** and enter your username and password. Then press **Apply** button to finish setting.

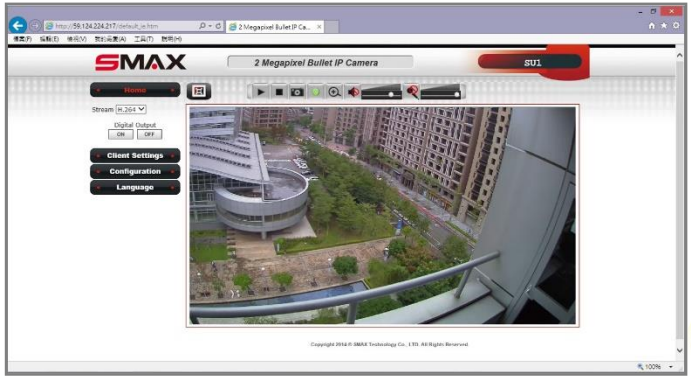


Notification：

When select PPPoE connection setting, please make sure your network camera is equip with a true static IP address. If so, you can access to the camera by entering the IP address via internet. If not, please refer to our DDNS setting.

SMAX Network Camera connection：

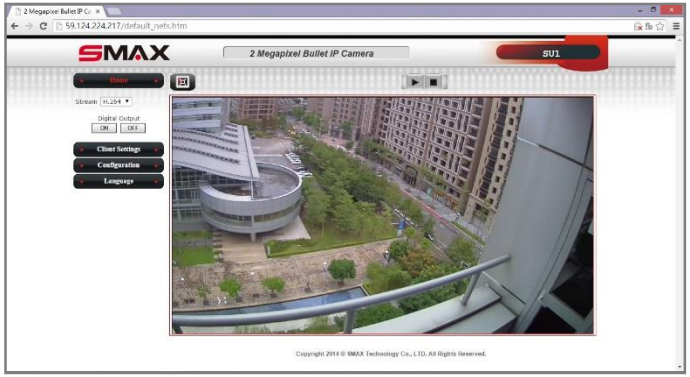
SMAX network camera supports multiple connections for accessing. Includes multiple browsers connection, video player connection that supports RTSP, SmaxViewer APP connection, or SMAX VMS or CMS software to access. Each connection fulfill different surveillance application for different purpose.



Windows Internet Explorer

3.2. Accessing via Web UI

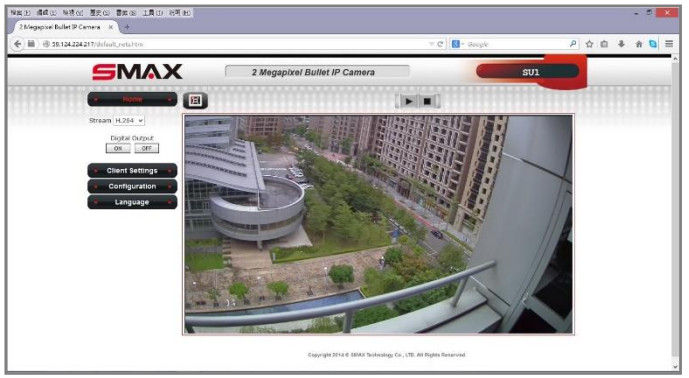
You can select browser for the purpose of monitoring, system setting, SD card recording and searching, local computer recording, audio function…etc.



chrome

Notification：

1) We suggest to use IE 9/10/11 and above version to access SMAX network camera.
2) Other than IE browser, SMAX network camera also support both Google Chrome and Mozilla Firefox browsers for accessing.
3) If using Google Chrome and Mozilla Firefox to access, those browsers will need Quick Time to play the live video. If your computer has not install Quick Time software, please download and install it. Then refresh the browser.



mozilla Firefox

3.3. Accessing via RTSP Player

SMAX network camera supports accessing via RTSP player. Below using VLC player as a reference instruction:

Step 1.

Please run the VLC player and select **Media(M)** button. Then select **Open network stream(N).** It will pop out the setting window.

Step 2.

Please enter **RTSP address** and press **Play** button. It should link to the camera for the live video as shown in below picture.

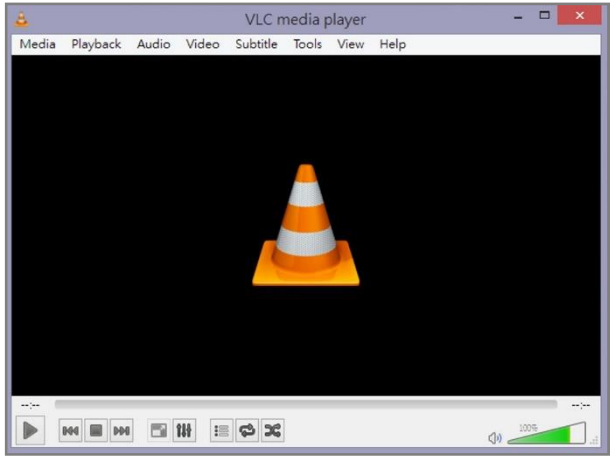
Notification：

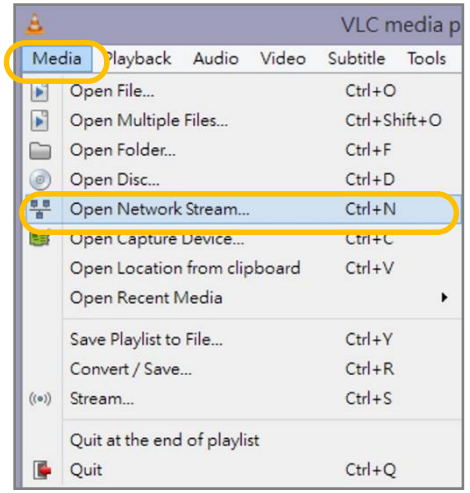
SMAX network camera provide three RTSP stream:

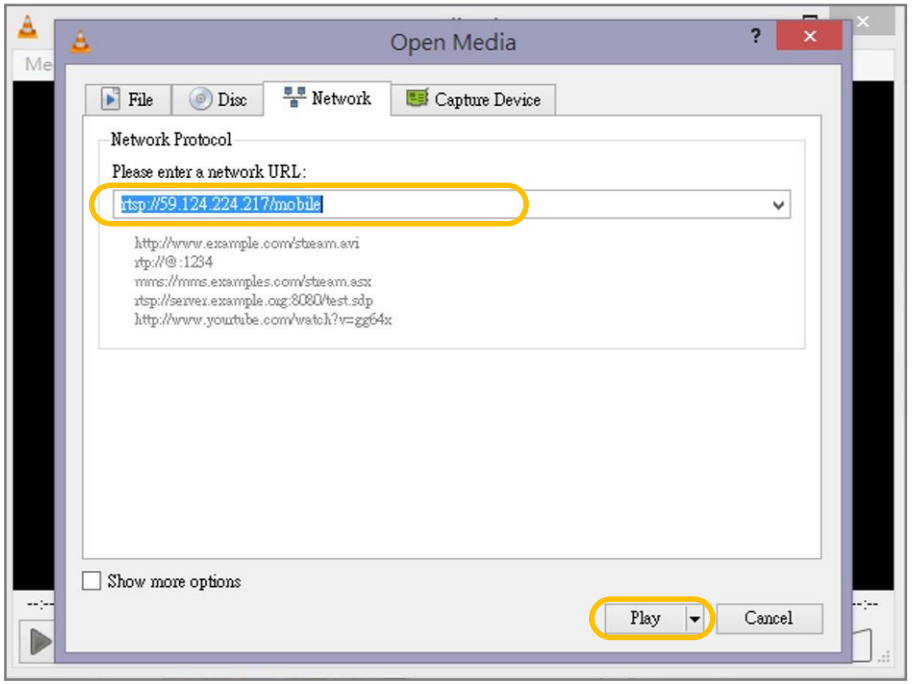
Main stream address: rtsp://**Camera's IP**/stream1

Second stream address: rtsp://**Camera's IP**/stream2

Mobile stream address: rtsp://**Camera's IP**/mobile







3.4. Accessing via Mobile APP

SMAX network camera supports accessing via mobile APP with both iOS and Android system. Below using iPad mini as a reference instruction:

Step 1.

Please download SmaxViewer from the APP store to your iPhone or iPad device.

Step 2.

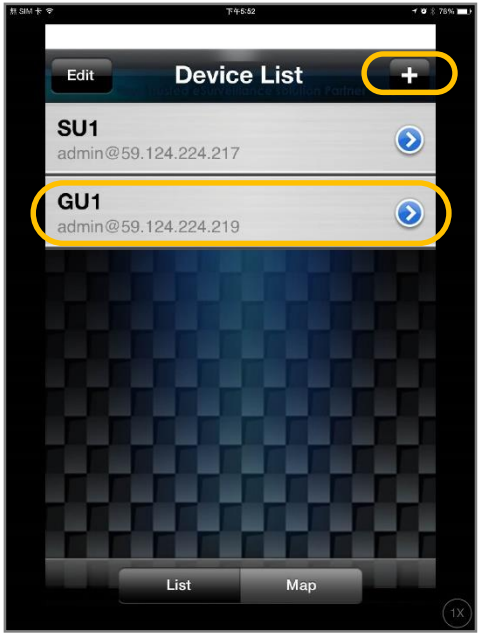
Please run the SmaxViewer APP and press **+** button. It will goes to the adding camera page.

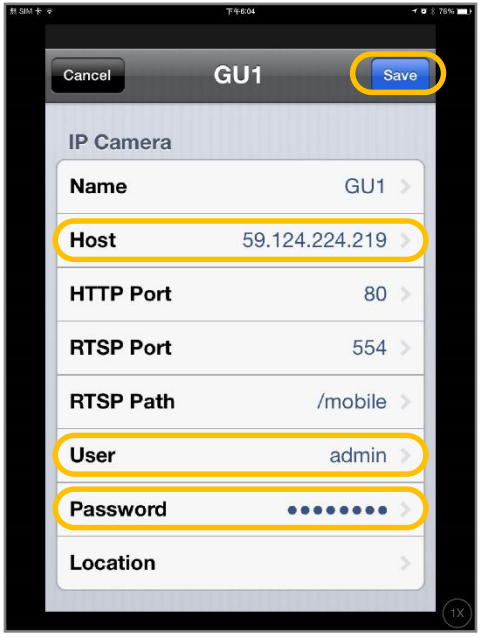
Step 3.

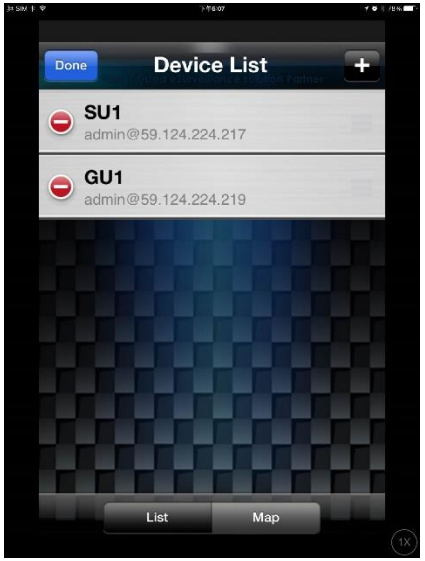
Please enter your camera's IP address, Username and password setting. Then press **Apply** button to store the setting.

Step 4.

Please select the added camera from the **Device List** to access camera.







Notification:

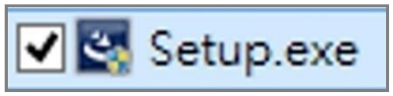
SmaxViewer support horizontal display.

3.5. Accessing via SMAX VMS

Please select **Setup.exe** from the SMAX VMS folder of CD content. Follow installation procedure and setting. Then you can run the SMAX VMS software to use.

3.5.1. SMAX VMS Installation procedure：

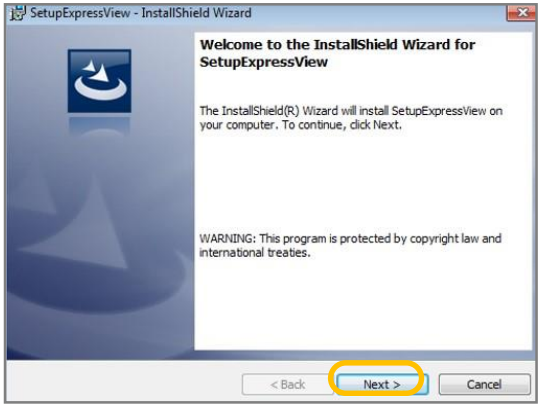
Setup 1.



Setup 2.

User Account Control
Do you want to allow the following program from an unknown publisher to make changes to this computer?
Program name: Setup.exe
Publisher: Unknown
File origin: Hard drive on this computer
Show details
Yes
No
Change when these notifications appear

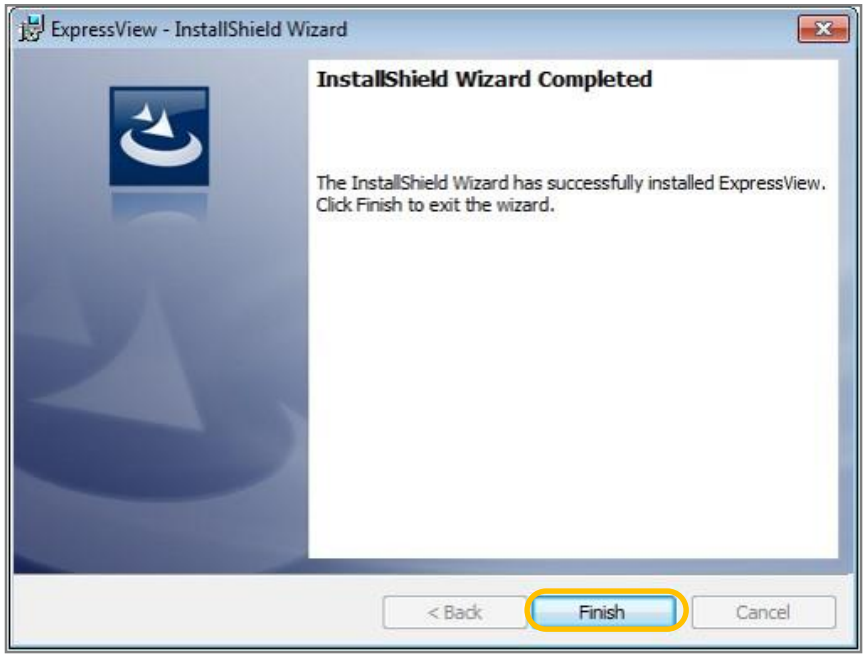
Setup 3.


SetupExpressView - InstallShield Wizard
Welcome to the InstallShield Wizard for SetupExpressView
The InstallShield(R) Wizard will install SetupExpressView on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

Setup 4.

InstallShield Wizard
Preparing to Install...
ExpressView Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Extracting: ExpressView.msi
Cancel

Setup 5.


ExpressView - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed ExpressView. Click Finish to exit the wizard.
< Back
Finish
Cancel

3.5. Accessing via SMAX VMS

Start to use your SMAX VMS software by clicking the shortcut from your desktop after installation is complete.

3.5.1. SMAX VMS adding camera procedure：

Step 1.

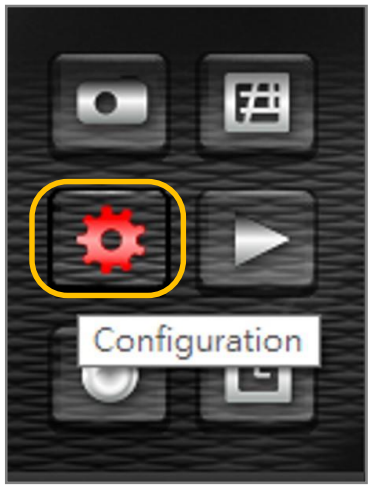
Run the **SMAX VMS** software and enter the **Username** and **Password.**

Notification：

Default username is **admin.** Password leave as blank.

Step 2.

Select **System** icon to your system setting page.



3.5. Accessing via SMAX VMS

Step 3.

Please select **Add Camera** button to you adding page.

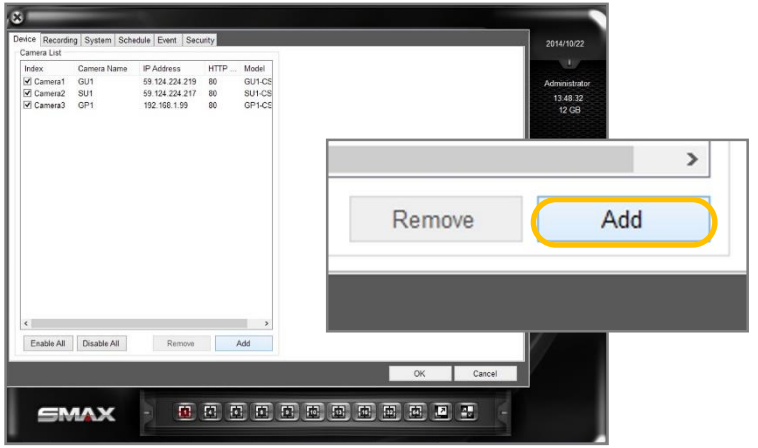
Step 4.

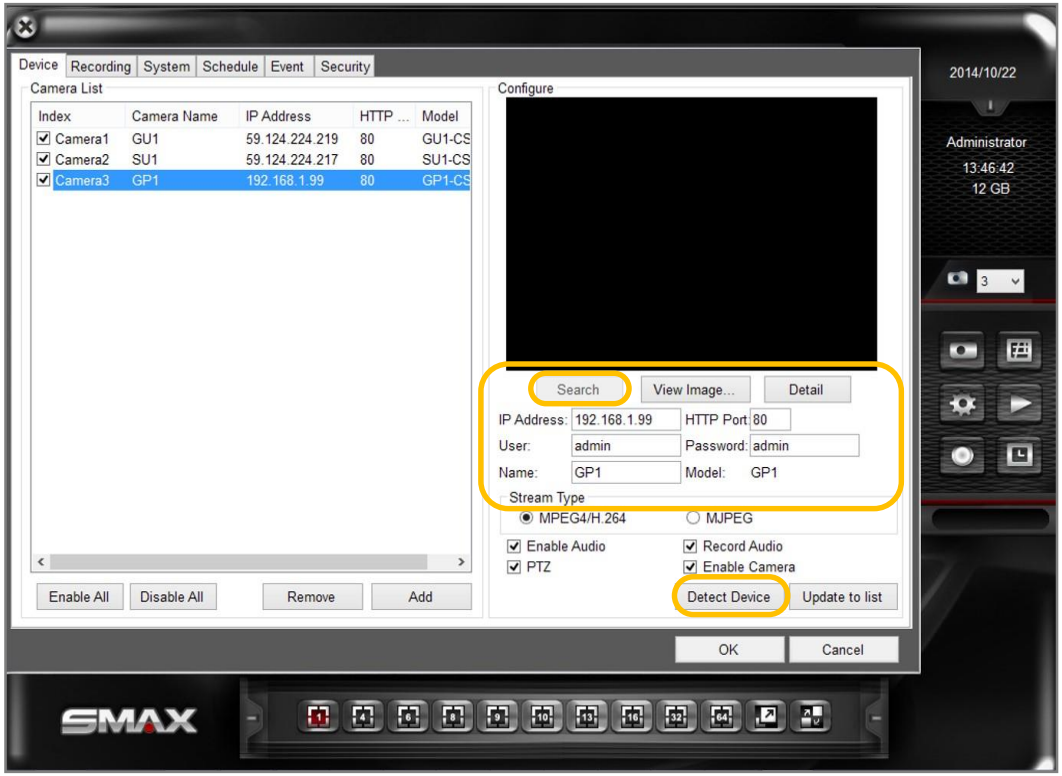
There are two ways of adding new camera. One is search the camera within local LAN. Press **Search** button so the VNS will automatically search all SMAX camera within local LAN.

Second way is to add camera over internet structure by entering **IP address, HTTP port, Username, Password and Name.** Then press **Search Server** button.

Notification：

When press **Search Server** button, it will pop out below confirmation window. Press **Yes** to continue process.





3.5. Accessing via SMAX VMS

Step 5.

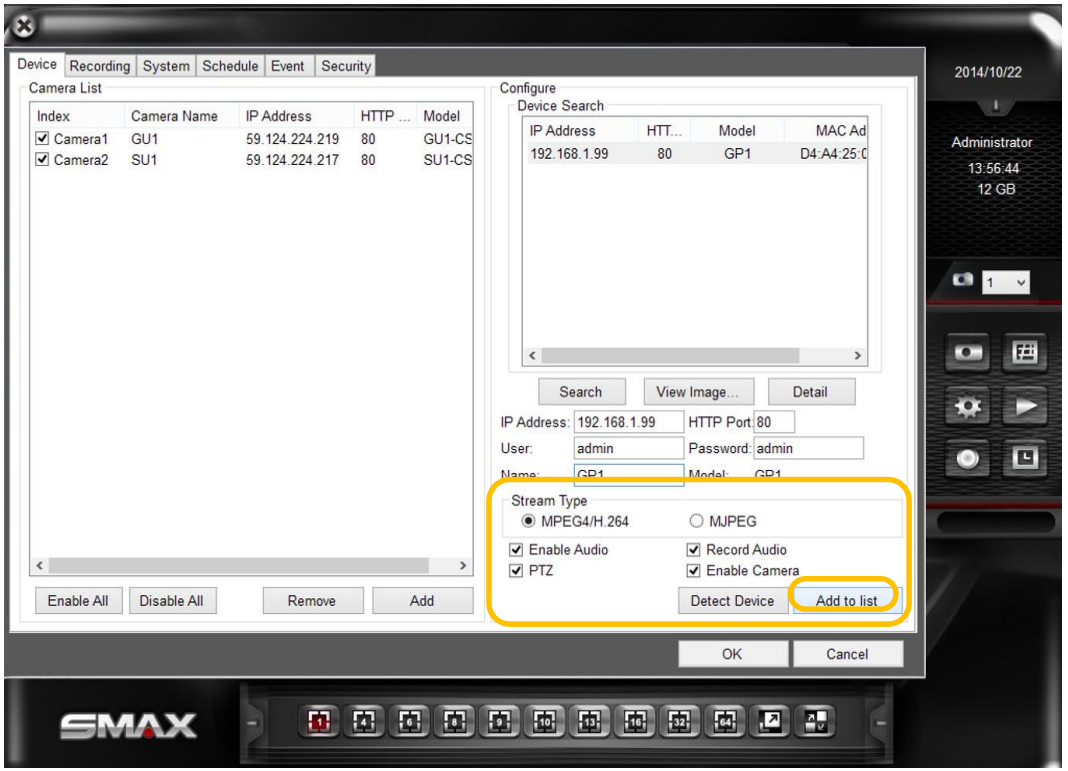
After search sever process, you may see the further detail setting if VMS is able link to your network camera. Please select all possible function that you wish to enable, such as **Audio, Recording, PTZ and Operate camera.**

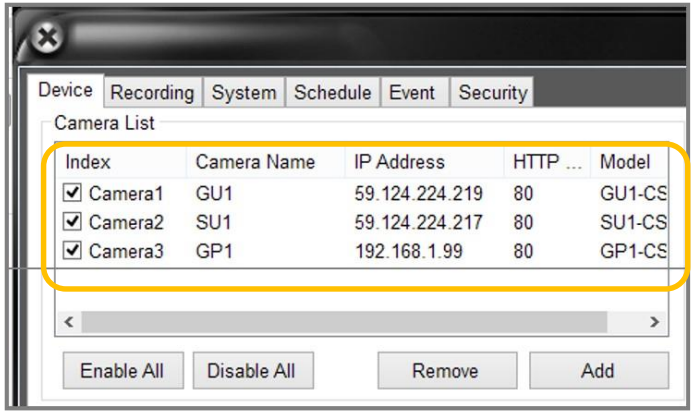
Notification：

Different camera device has different function. If one function does not work, please first check whether your camera has the function. Operate camera function can wait till all cameras have been add to VMS. Then Operate all cameras at the same time.

Step 6.

Select **Add** button to finish setting. You may see your added camera in the **Camera List.**





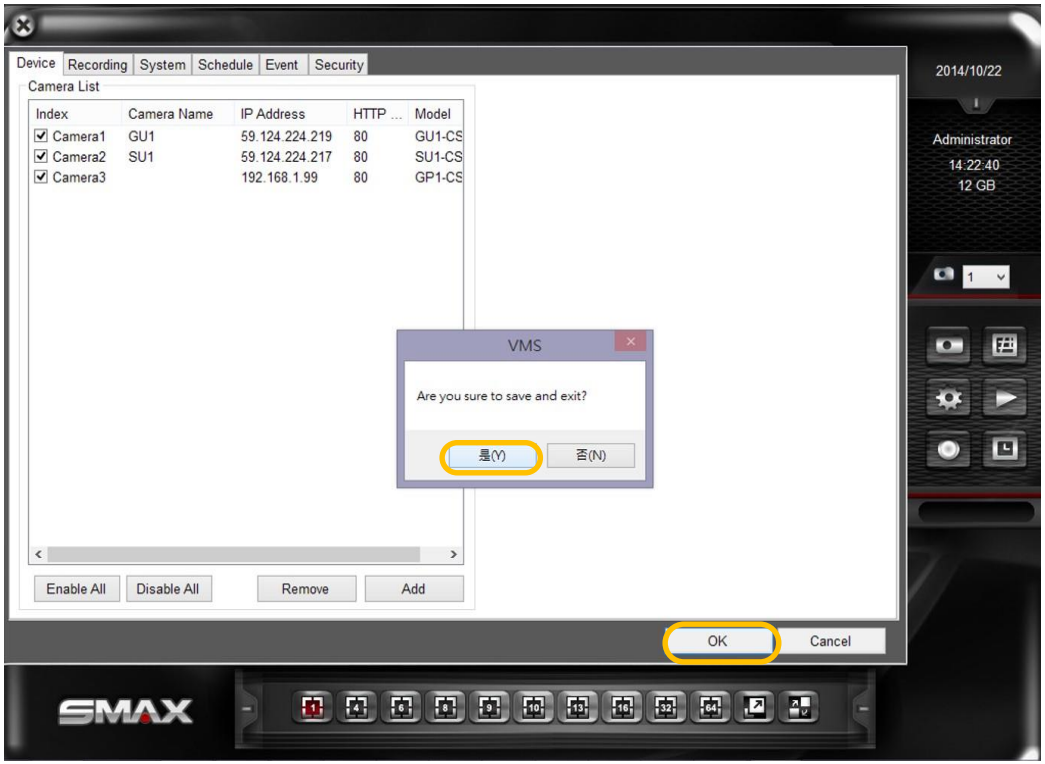
3.5. Accessing via SMAX VMS

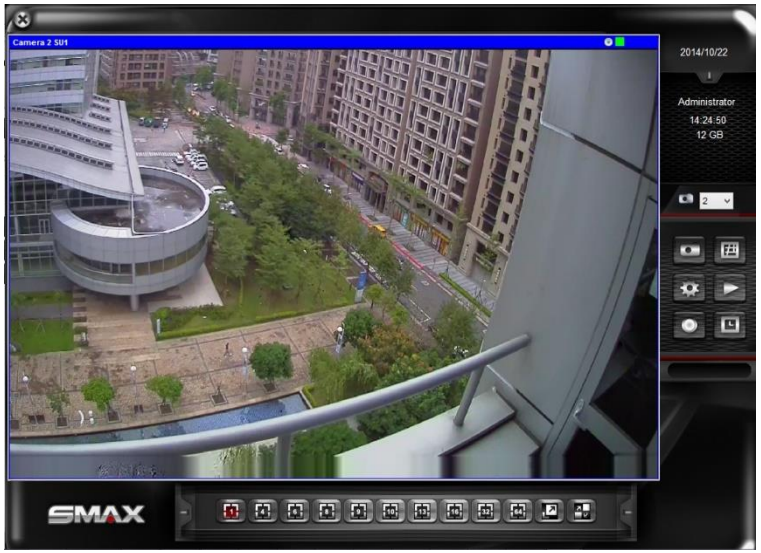
Step 7.

Press **Confirm** button at last and it will pop out the confirmation windows. Press **Yes** to store and finish your setting. After above procedures, you should be able to watch all live video from the live view page of VMS.

Notification：

For further SMAX VMS software setting or operation, please kindly refer to its manual.





WEB UI

4.1. Home page

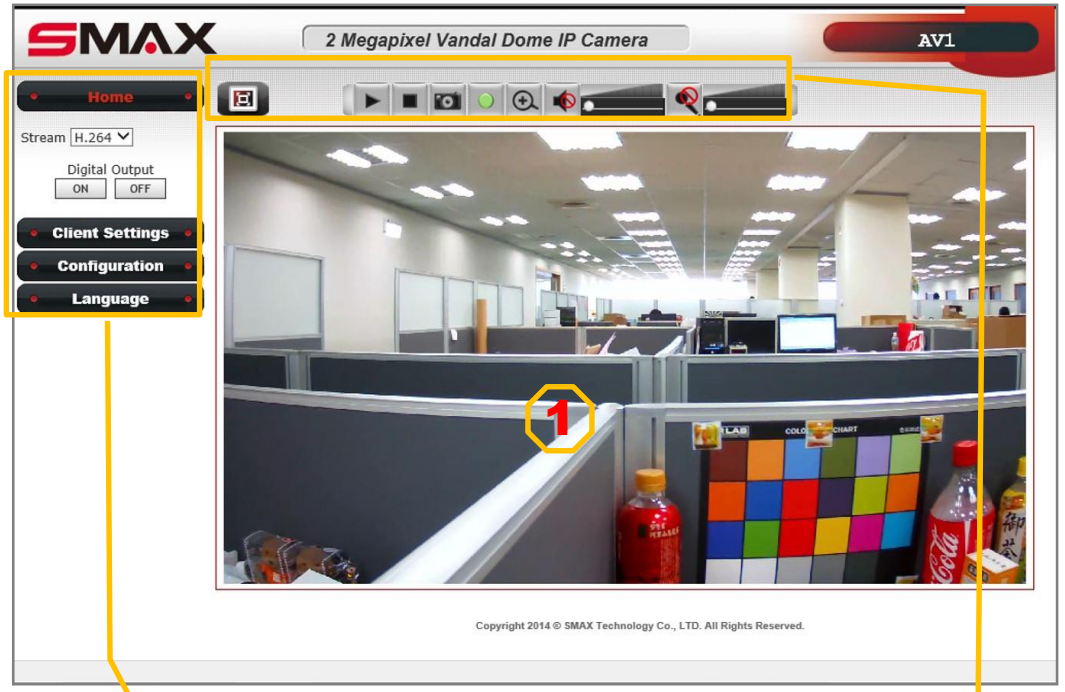
You can access SMAX network camera via web browser to monitor live view, manage setting, SD card recording…etc. There is a complete introduction procedure of all function in the following chapter four and five.

Homepage function list:

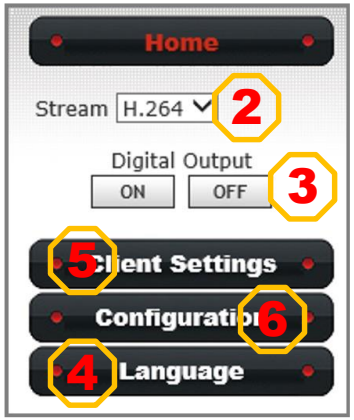
1) **Live view screen**
2) **Select stream format**
3) **Digital output on/off switch**
4) **Select language**
5) **Client settings**
6) **System configuration**
7) **Live view operation control list**

Notification：

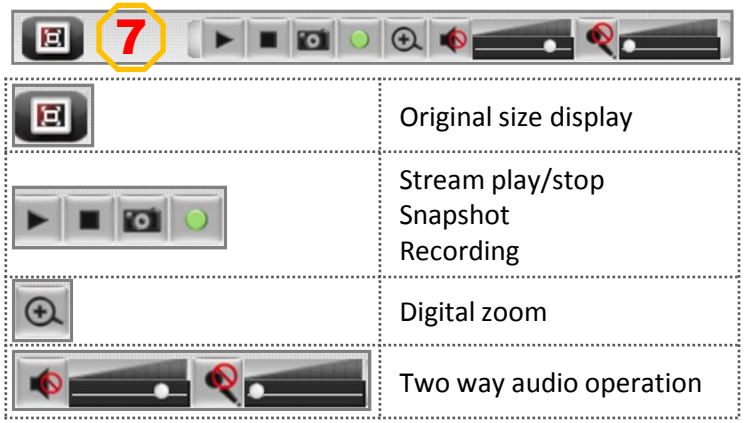
Function list of icons as shown on the picture to the right.



Main function List



Live view operation list



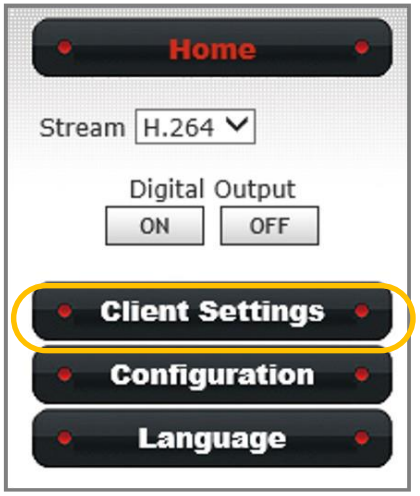
4.2. Client Settings

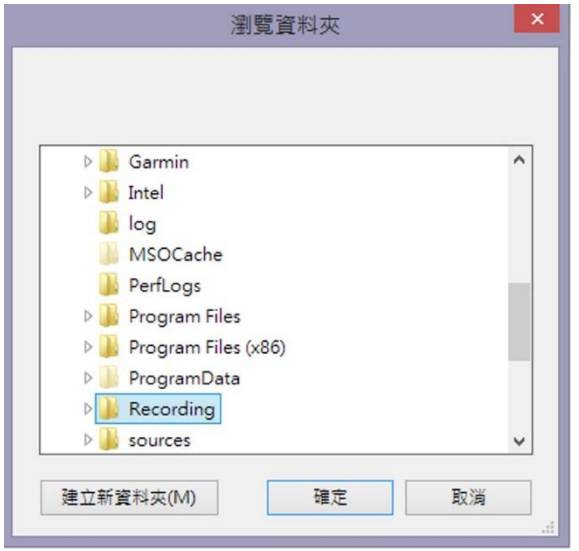
4.2.1. Protocol option

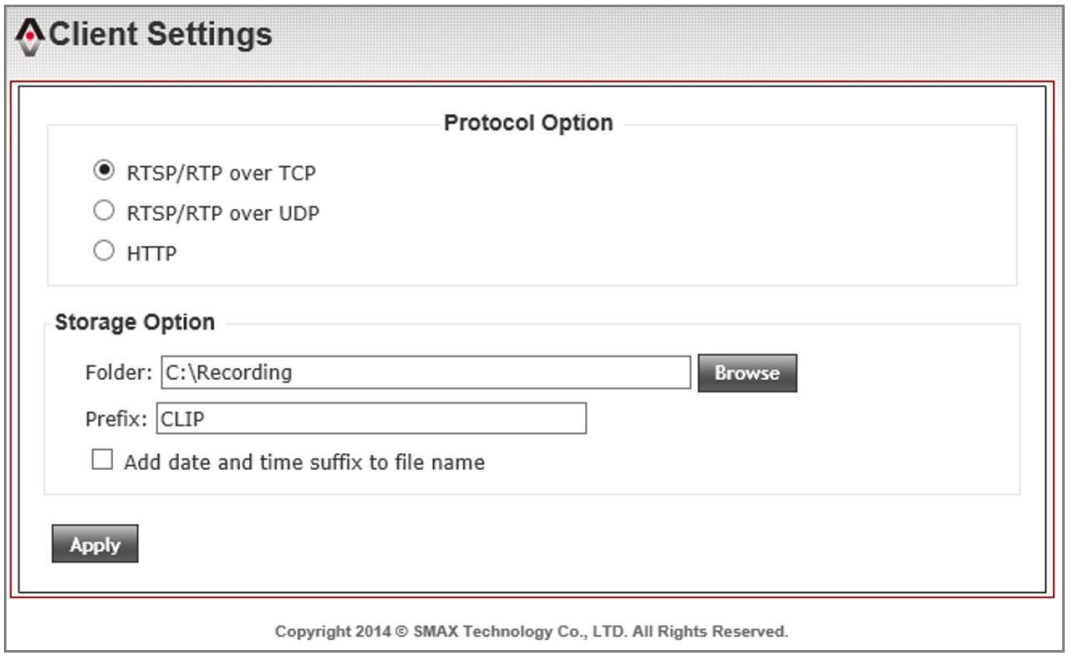
This setting is to define your protocol option. Default set as **RTSP/RTP over TCP.** This protocol make sure that all image data must be transferred. But if you choose the image quality comes first, then you can change to **RTSP/RTP over UDP.** If your network environment only allows to connect with web page, then you can change to **HTTP** protocol.

4.2.2. Storage Option

This setting is to define your storage option. When doing a recording action, you can set where the recording file saves to. Press **Browse** button to set your folder path name. You can also name the **Prefix** of recording file and select to **Add date and time suffix to file name.** At last, press **Apply** to complete setting.







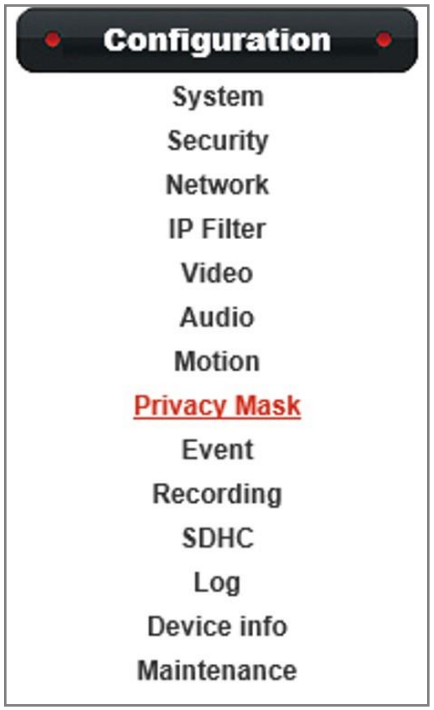
Configuration

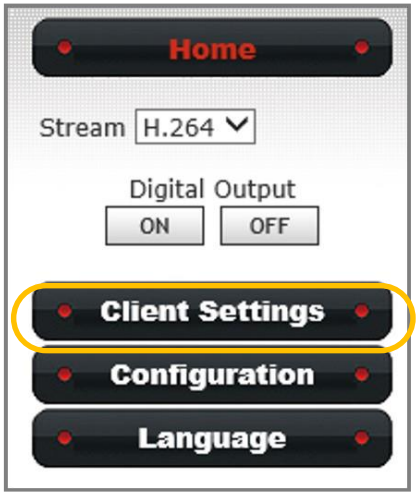
5.1. Configuration Settings

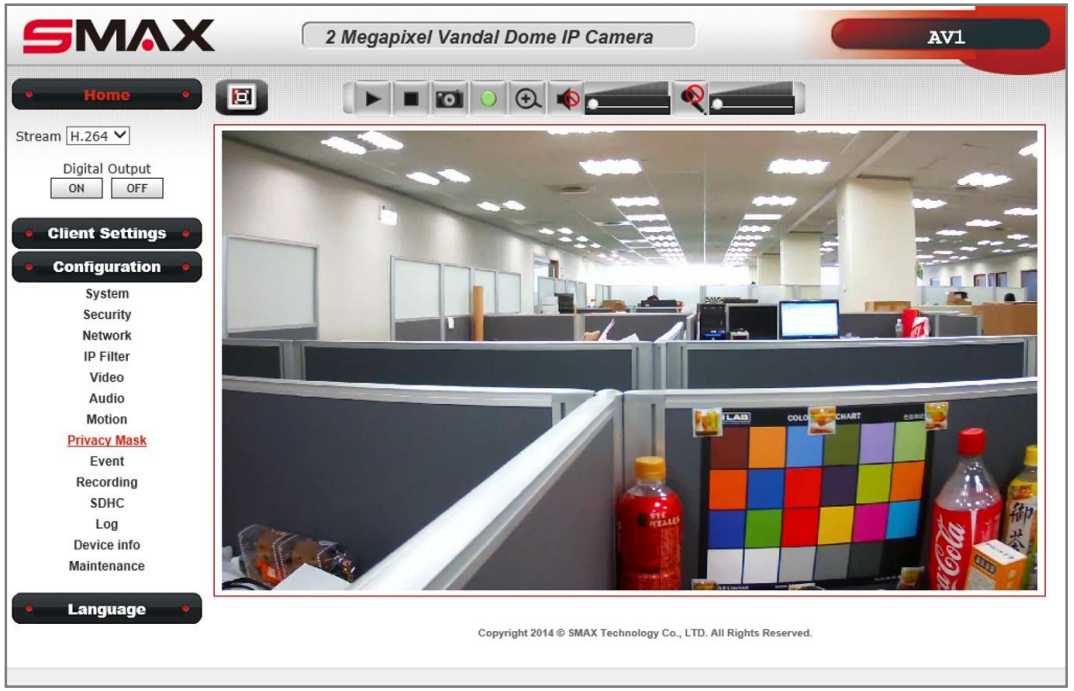
In the menu of configuration, it includes all operating function for settings, maintenance, log and device information…etc.

Configuration menu as shown below：

1) **System**
2) **Security**
3) **Network**
4) **IP Filter**
5) **Video**
6) **Audio**
7) **Motion Detection**
8) **Privacy Mask**
9) **Event**
10) **Recording**
11) **SDHC**
12) **Log**
13) **Device Info**
14) **Maintenance**







5.1. Configuration Settings

5.1.1. System

This system page display your network camera's **Host Name, LED Indicator ON/OFF Switch** and set the **Date and Time.**

Date and Time Setting procedure :

Step 1.

Select your network camera's **Time Zone** and enable **Daylight Saving** if needs to.

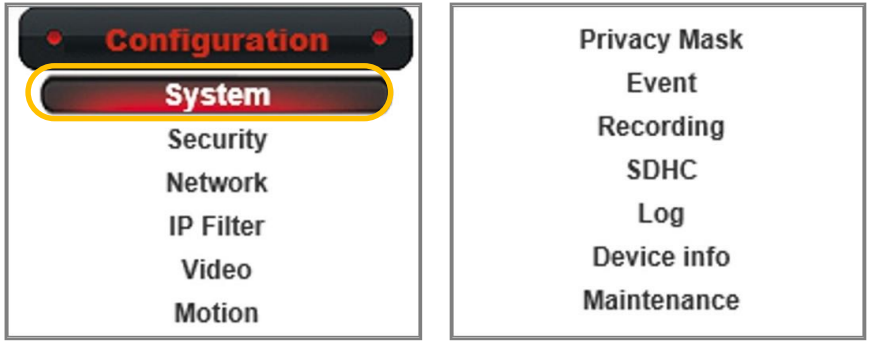
Step 2.

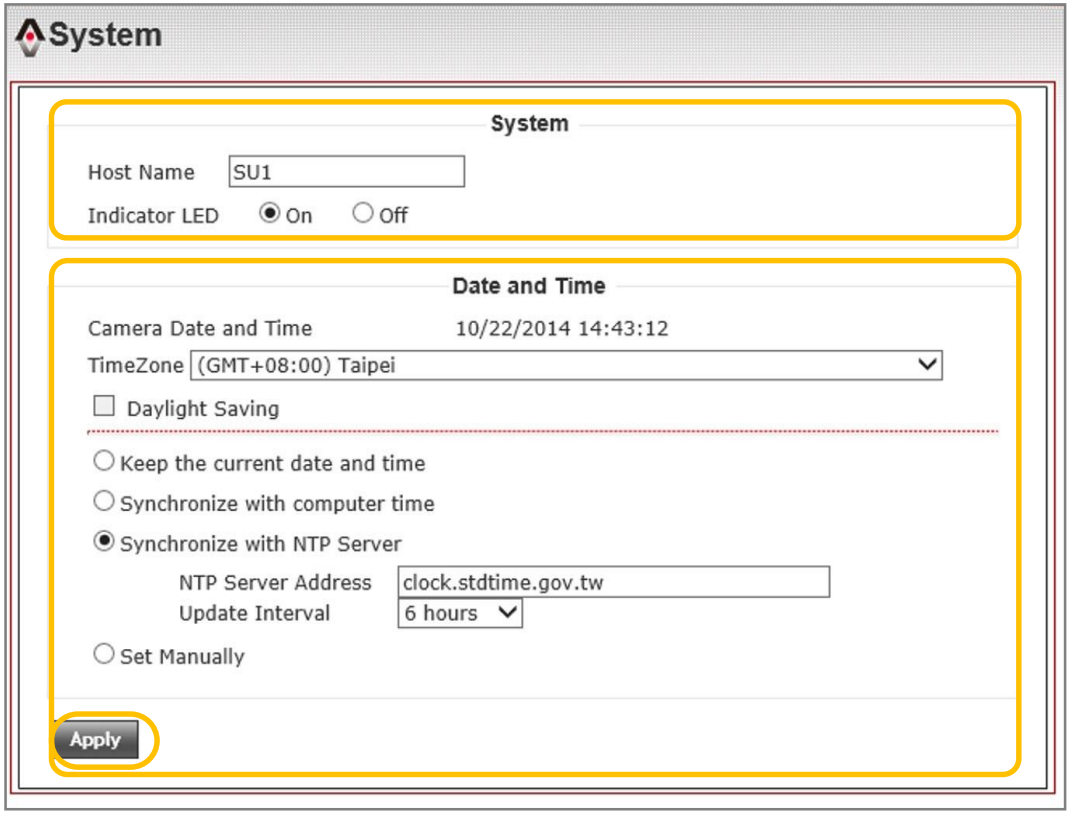
There are four ways to synchronize camera's time: **Keep the current date and time, Synchronize with computer time, Synchronize with NTP Server** and **Set Manually.**

For a small surveillance system, we suggest to **Synchronize with computer time**. Press **Apply** button to complete setting.

Step 3.

For a medium or above surveillance system, we suggest to **Synchronize with NTP Server.** Please enter your **NTP Server Address** and select **Update Interval.** Then press **Apply** to complete setting.

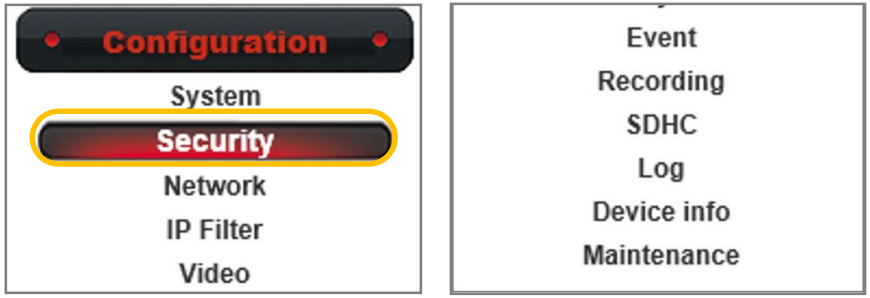




5.1. Configuration Settings

5.1.2. Security

Select **Security** button under the **Configuration** menu. It will goes to setting page. This function is to manage the user of this camera by setting **Administrator** and **Account List.**



Administrator Setting Procedure :

Step 1.

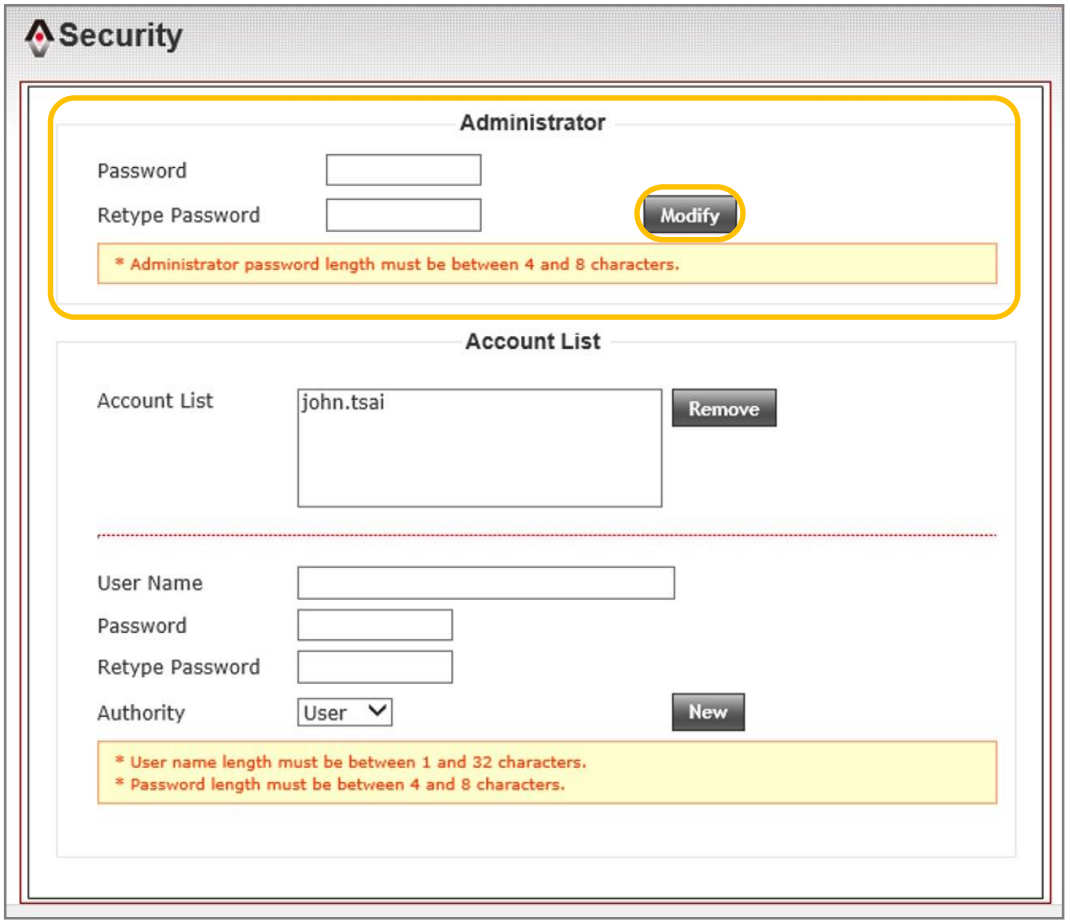
Please enter a new **Password** and **Retype Password.**

Notification：

Administrator password can be a composition of English letters and Arabic numerals. But the length must kept between 4~8 characters. No special character allow. And please keep notice between capital and lowercase English letters.

Step 2.

Press **Modify** to complete setting.



5.1.2. Security

Account List Setting Procedure :

Step 1.

Please enter **Username, Password, Retype Password.**

Notification：

Username can be a composition of English letters and Arabic numerals. But the length must kept between **1~32** characters. No special character allow. And please keep notice between capital and lowercase English letters.

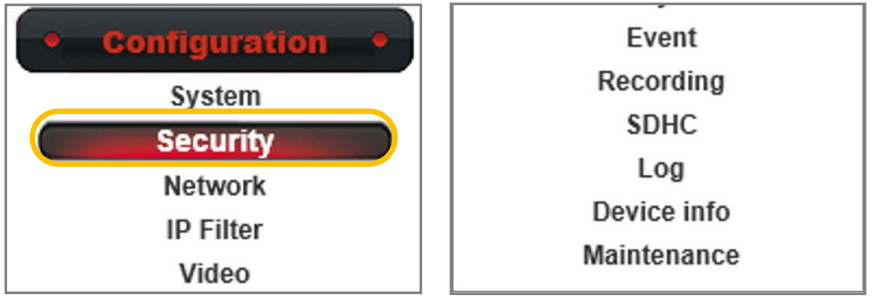
User password can be a composition of English letters and Arabic numerals. But the length must kept between **4~8** characters. No special character allow. And please keep notice between capital and lowercase English letters.

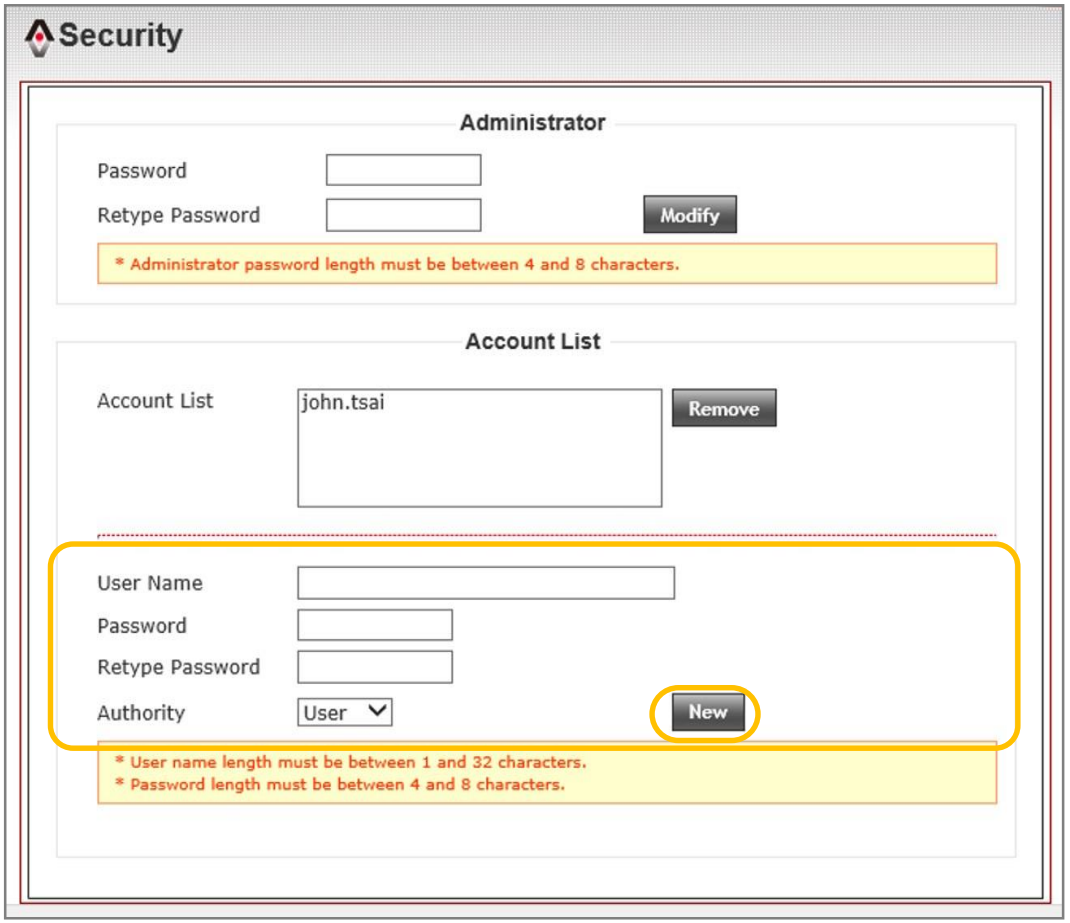
Step 2.

Select **Authority** then press **New** to add an account.

Notification：

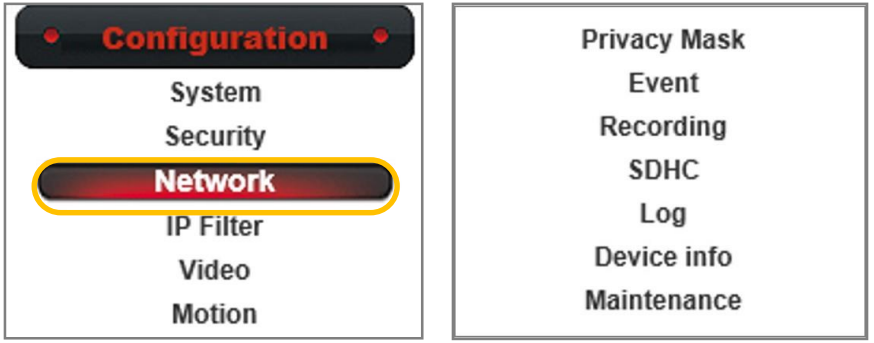
Authority has two types, **User** or **Guest.** The privilege of a guest is limited to watch the live view from the home page only. Without any setting authority. An **User** allows to operate all function within the home page and modify the client setting. If access to configuration menu, only **LOG** and **Device Info** allowed.





5.2. Network Settings

Default network setting of camera is set as **LAN** type, **DHCP IPv4/IPv6** and **Enable UPnP Discovery.** Which means when this network camera set in a local LAN network environment, it will get a dynamic IP from DHCP server each time when camera turns on.



5.2.1. General Network Setting

5.2.1.1. General Network Setting Argument

When your surveillance system has lower than 4pcs of network camera, we suggest to set **DHCP IPv4/IPv6.** You can search the camera's IP with **Smax Finder** software. Please refer to **chapter 3.1** for further description. If the total pcs of network camera is greater than 4pcs. We suggest to use **Static IPv4/IPv6.**

Camera's port setting as shown below：

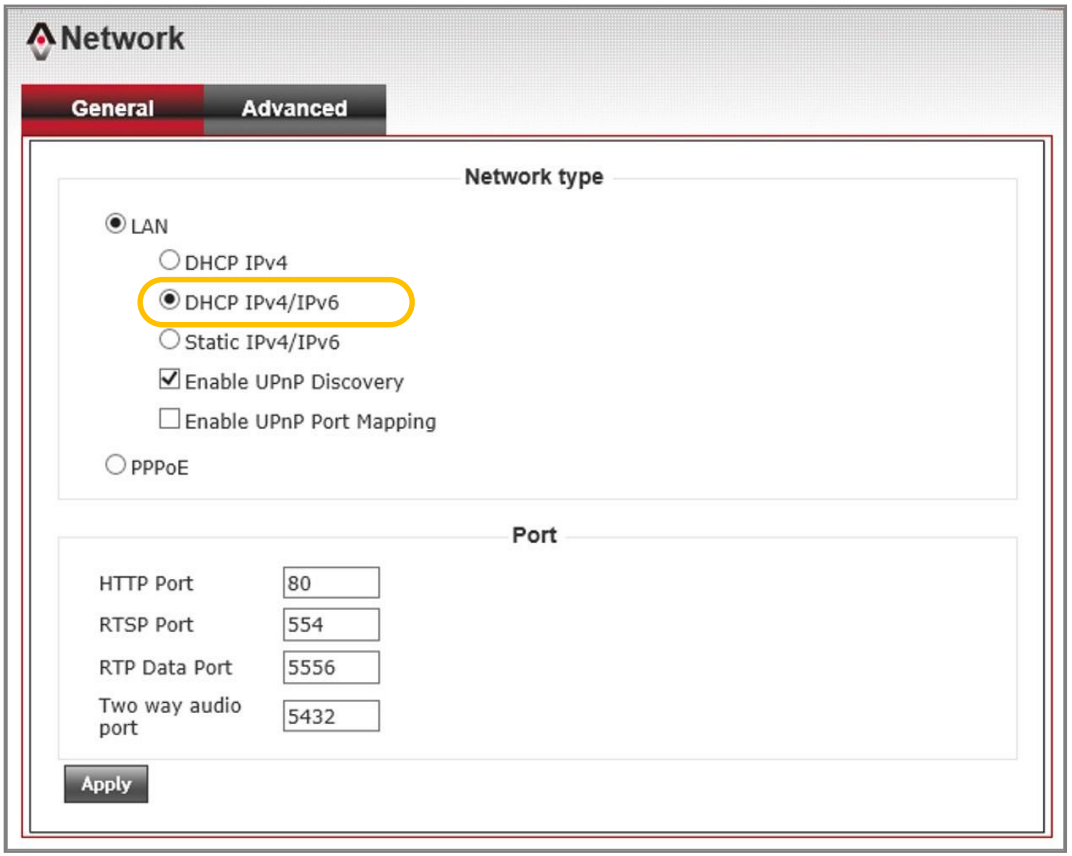
a) **HTTP Port： 80**

b) **RTSP Port：554**

c) **RTP Data Port：5556**

Notification：

If the default setting cannot connects to network camera properly, please kindly consult with you network managing staff first.



5.2.1.1. Intranet Static IPv4/IPv6 Setting

Static IPv4 Setting Procedure :

Step 1.

Select **Static IPv4/IPv6** under **Network Type** column.

Step 2.

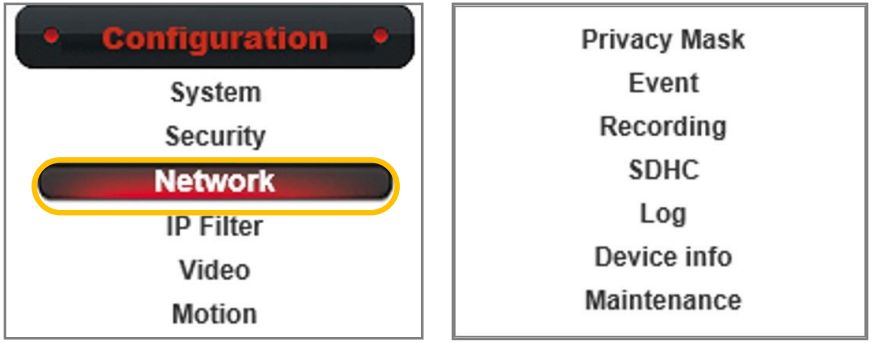
Please enter **IP Address (IPv4), Subnet Mask, Gateway, Primary DNS and Secondary DNS** information.

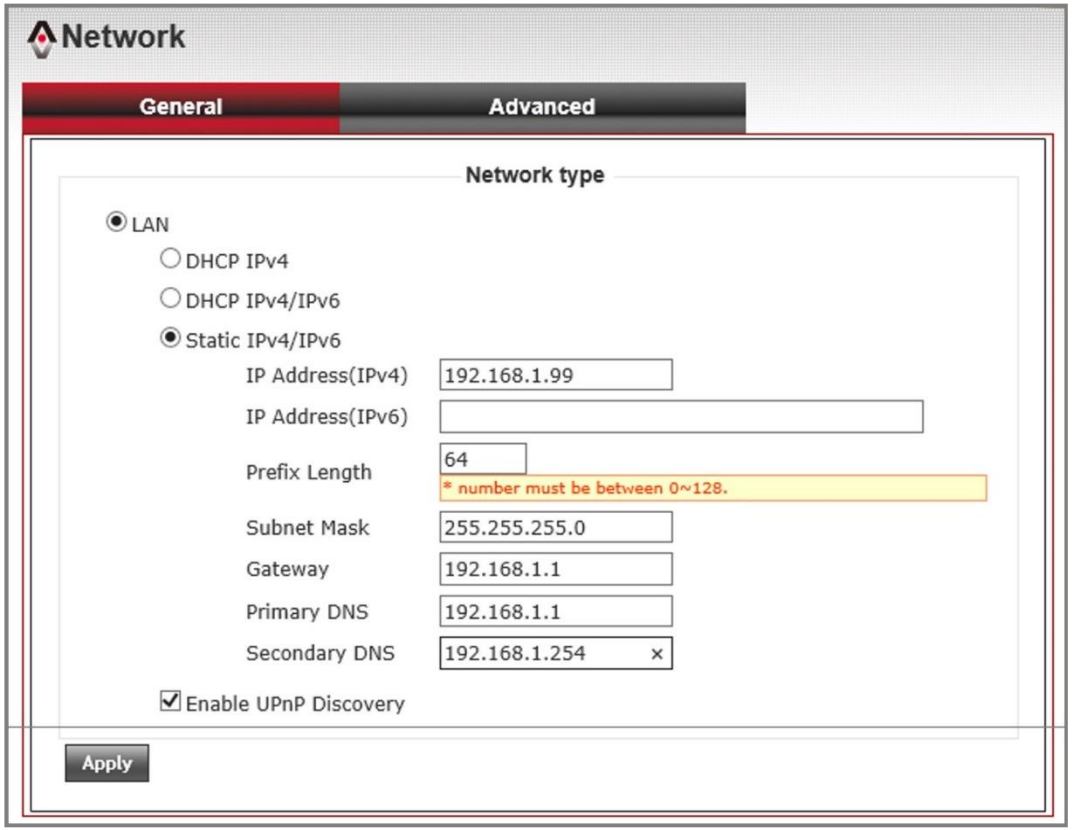
Step 3.

Press **Apply** to complete setting.

Notification :

For static IP setting, please refer to the picture as shown on bottom right. If the LAN IP segment is **192.168.1.xxx.** Please enter your router's IP address for the **Gateway.** We suggest the camera to use from **192.168.1.99 ~ 192.168.1.200**





5.2.1.2. Internet Static IPv4/IPv6 Setting

Static IPv4 Setting Procedure :

Step 1.

Select **Static IPv4/IPv6** under **Network Type** column.

Step 2.

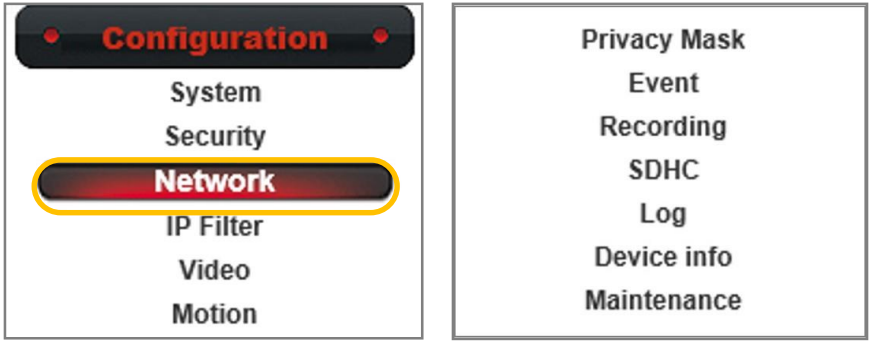
Please enter **IP Address (IPv4), Subnet Mask, Gateway, Primary DNS and Secondary DNS** information.

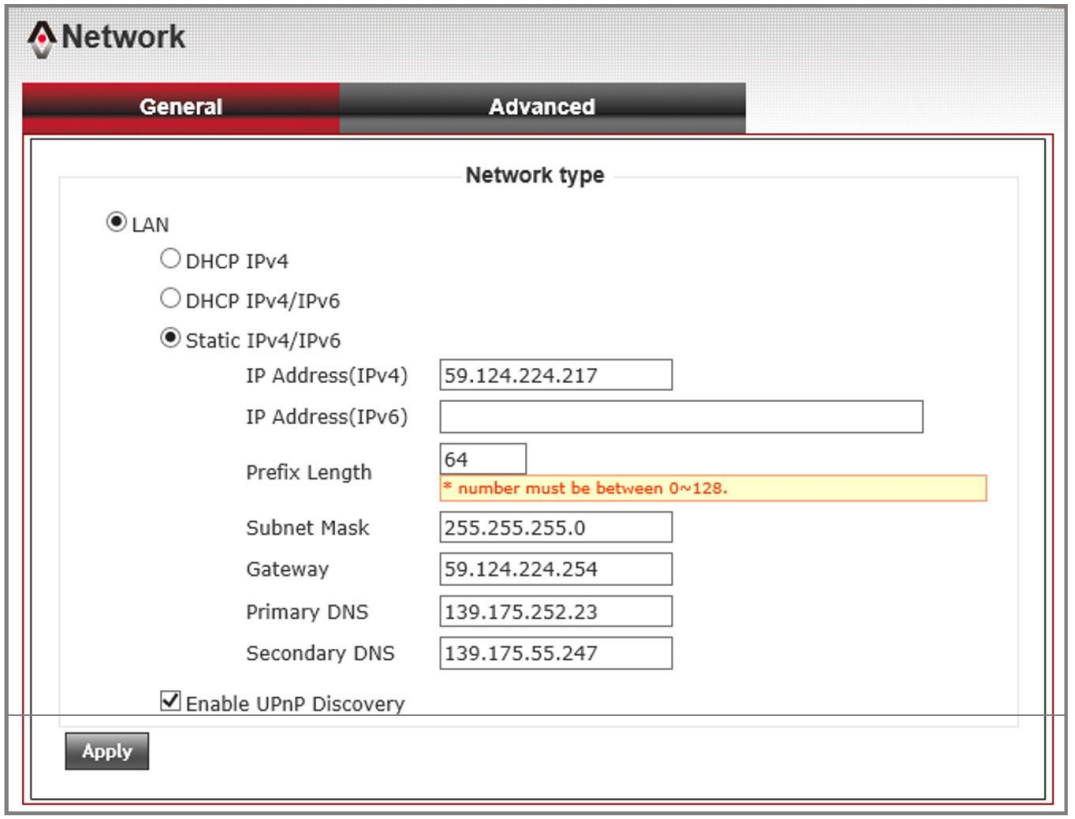
Step 3.

Press **Apply** to complete setting.

Notification：

Please contact your ISP service vender for further interne static IP setting.





5.2.1.3. PPPoE Setting

PPPoE Setting Procedure :

Step 1.

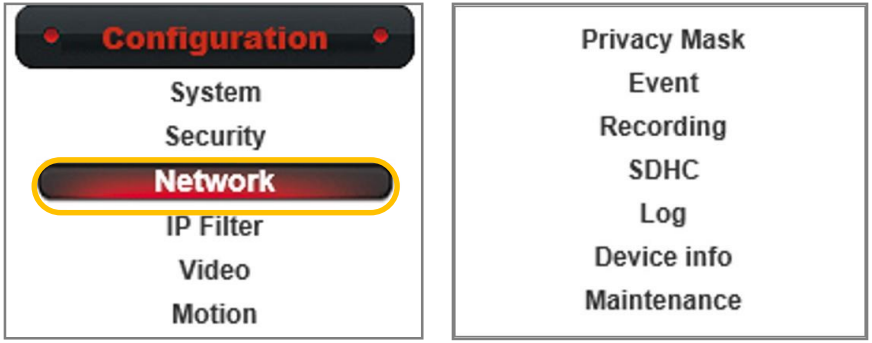
Select **PPPoE** under **Network Type** column.

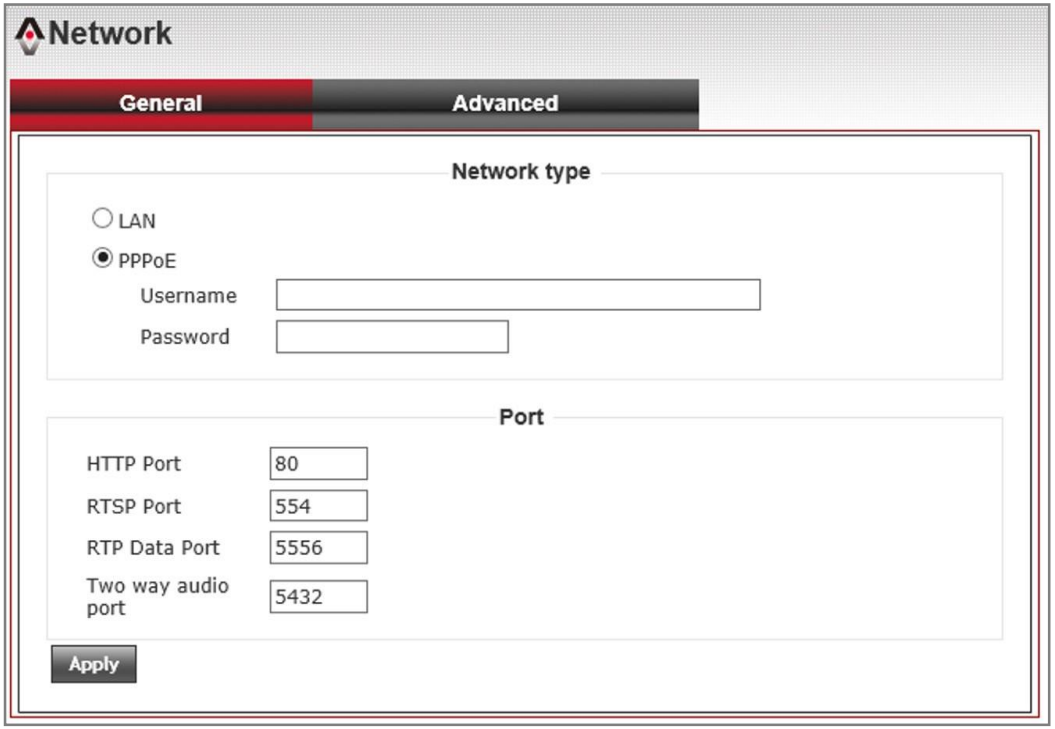
Step 2.

Please enter **Username** and **Password.**

Step 3.

Press **Apply** to complete setting.





Notification ：

PPPoE is a type that supports xDSL network connection. Please contact your ISP service vender for the username and password.

For PPPoE connection, network camera will get an IP Address for connection. Some ISP vender may provide a static IP address. So the user only needs to enter that IP on the IE browser, then you will able connects to the network camera.

If you ISP vender does not supply PPPoE static IP, please kindly refer to the DDNS setting in Advanced Network Setting.

5.2.2. Advanced Network Setting

Advanced network setting includes **Multicast, Bonjour, Qos, DDNS, HTTPS function setting.**

5.2.2.1. HTTPS Setting

HTTPS Setting Procedure：

Step 1.

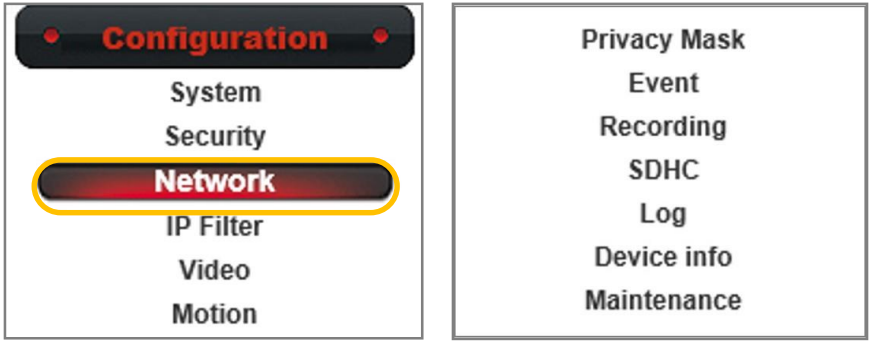
Select **Advanced** page under **Network** page.

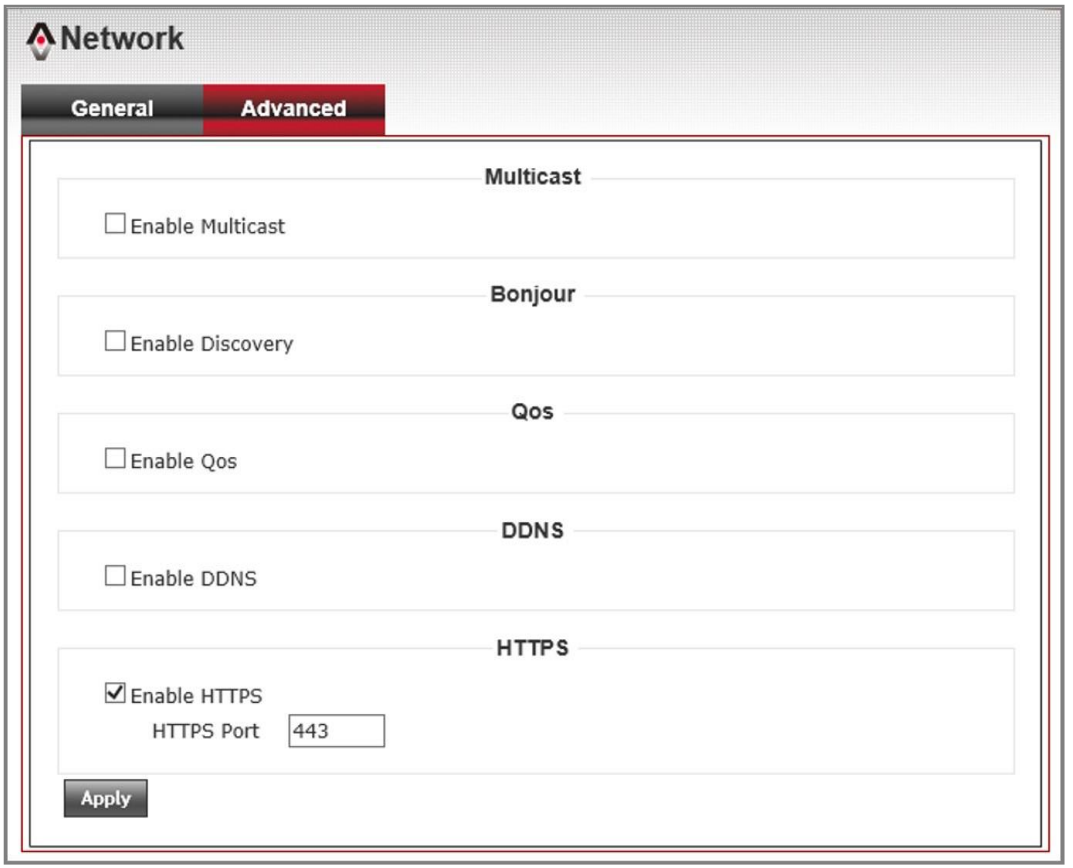
Step 2.

Select **Enable HTTPS.** Default **HTTPS Port** set as **443**.

Step 3.

Press **Apply** to complete setting.





5.2.2.2. DDNS Setting

DDNS setting must first get a DDNS address from a DDNS service website. That DDNS service website should provide you the **Host Name,** and let you do the setting on **Username** and **Password.**

Notification：

SMAX network camera provides three DDNS service website: **DynDNS.org**、**TZO.com** and **No-ip**. You can choose either one of the website to start you **DDNS Host Name** registration.

DDNS Setting Procedure：

Step 1.

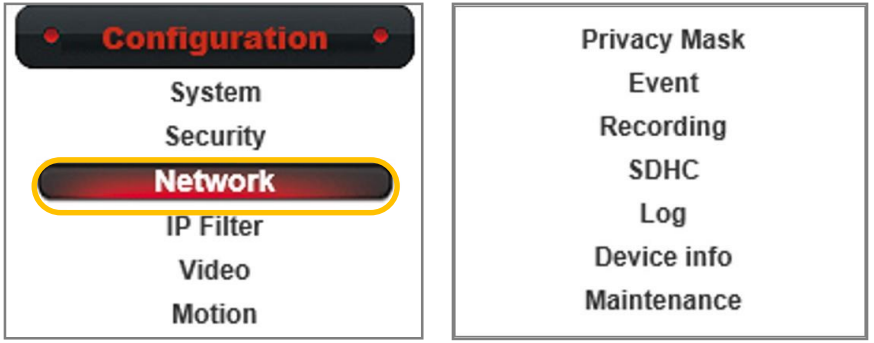
Select **Advanced** page under **Network** page.

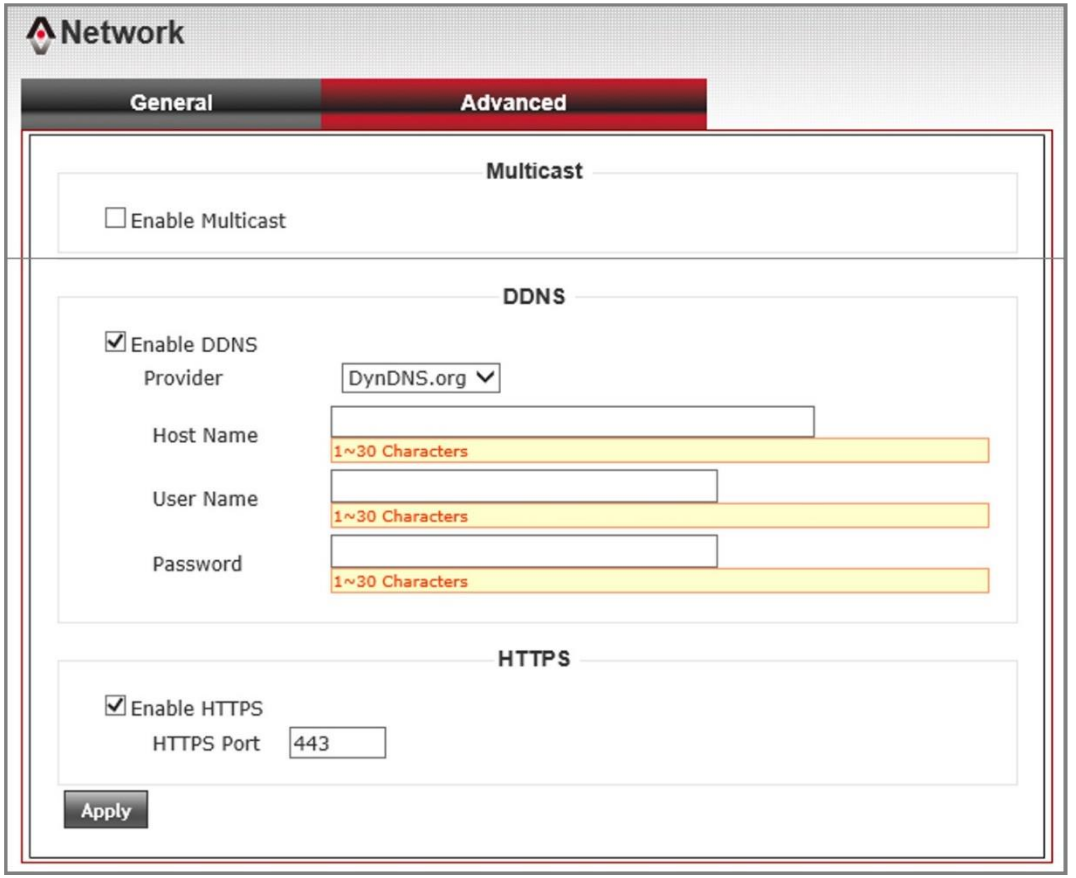
Step 2.

Select **Enable DDNS.** Then enter **Host Name, Username** and **Password.**

Step 3.

Press **Apply** to complete setting.





5.2.2.3. Multicast Setting

Multicast Description：

A normal connection between computer to network camera is a single point delivery. Which means sending a stream packet from camera to one computer only. For a multicast function is to send the stream data to one point, but you can set multiple computer as this point recipient.

SMAX network camera is distinguished by the multicast group address. Its IP address range is from **232.0.0.0 to 232.255.255.255** in a class D. A class D is a group address which the network camera will send the stream packet to. Then the recipient will inform the router to join this group.

Multicast Setting Procedure：

Step 1.

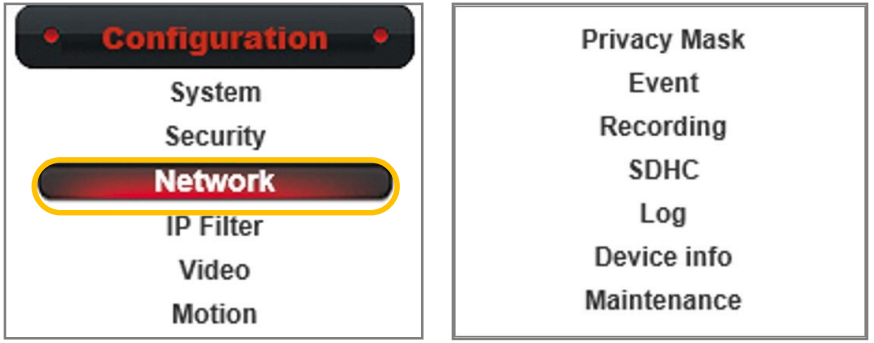
Select **Advanced** page under **Network** page.

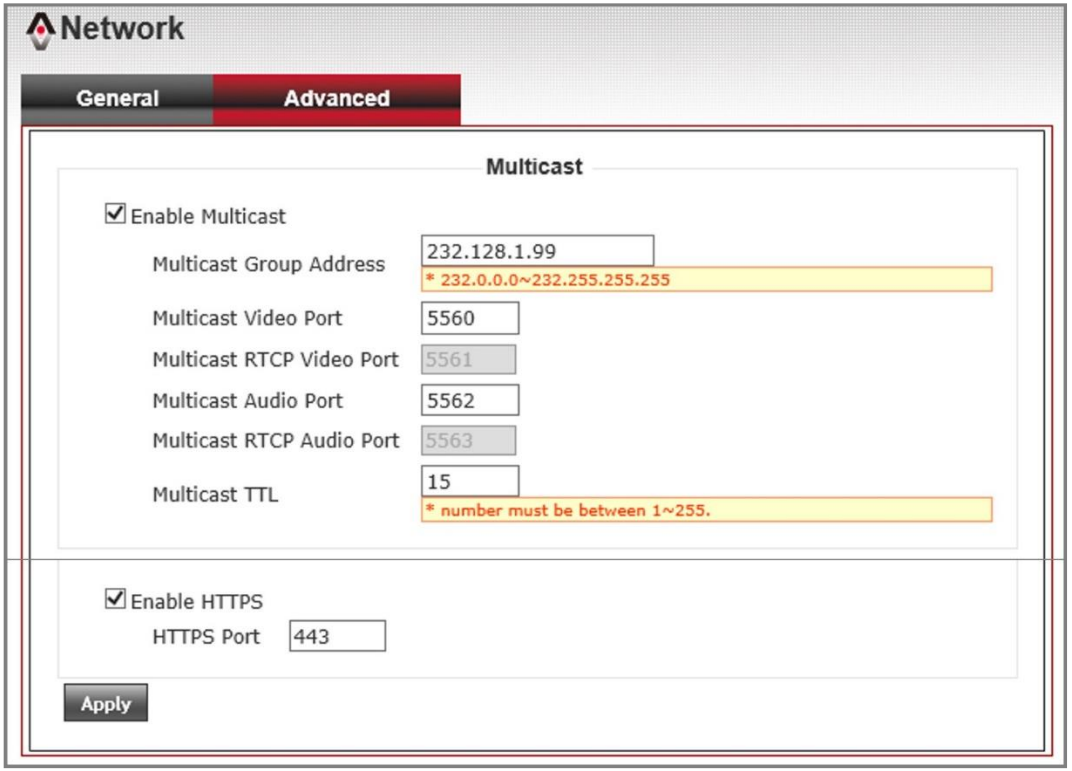
Step 2.

Select **Enable Multicast.** Then enter **Multicast Group Address** and all Multicast parameters. Suggest to keep the default setting.

Step 3.

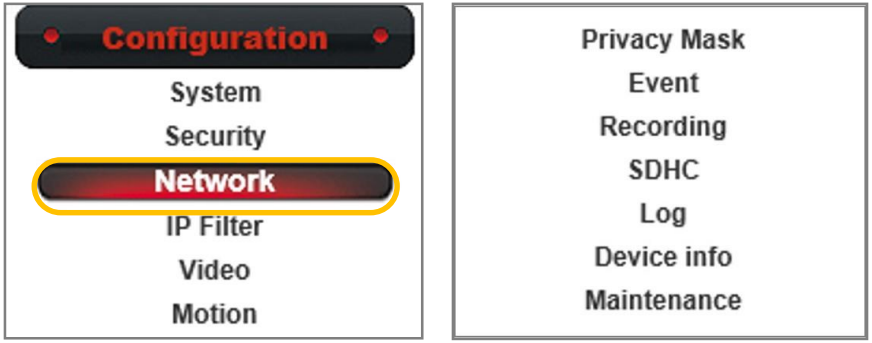
Press **Apply** to complete setting.





5.2.2.4. QoS Setting

Via QoS setting, it can ensure the video image and audio stream comes first in bandwidth. So the transfer stability will not effected by other network transmit packets.



QoS Setting Procedure：

Step 1.

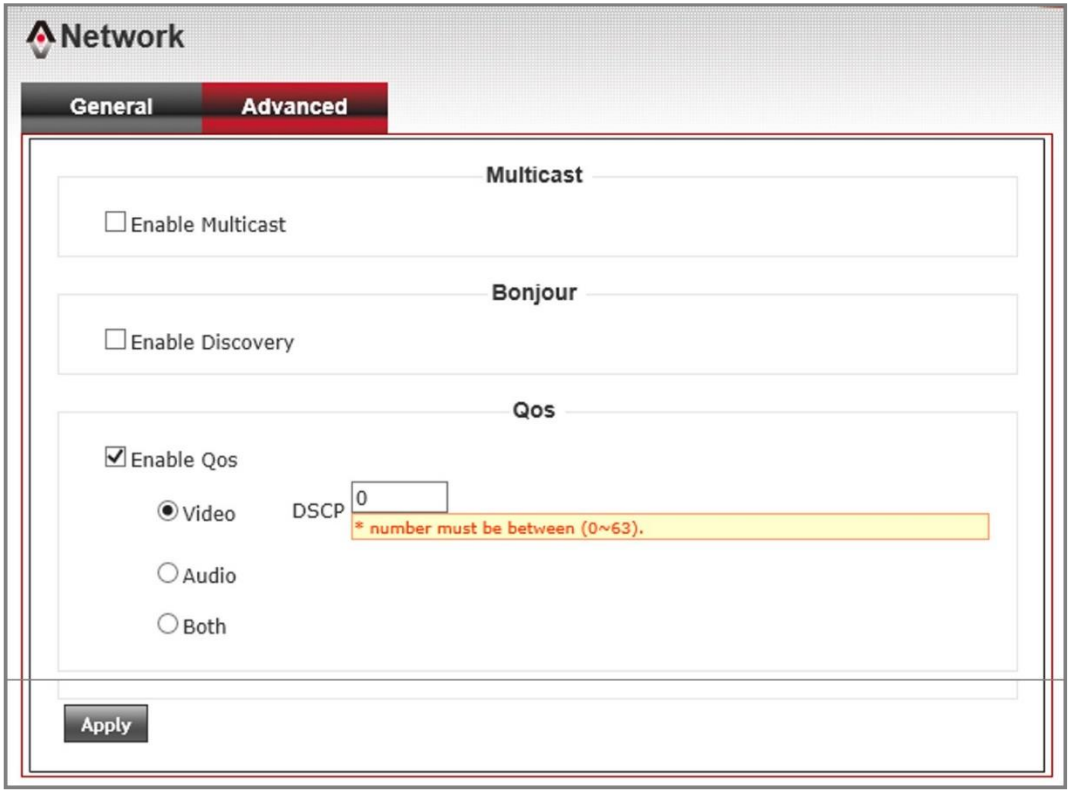
Select **Advanced** page under **Network** page.

Step 2.

Select **Enable QoS.** And select whether enable **Video, Audio** or **Both,** then enter its **DSCP value.**

Step 3.

Press **Apply** to complete setting.



Notification：

DSCP (Differentiated Services Code Point). In Dec. 1998, IETF published a QoS classification standard of Diff-Sery (Differentiated Service). DSCP using six bits and its range from 0~63.

5.2.2.5. Bonjour Setting

Bonjour is called as a Zero-configuration networking, which it can automatically find the device within local LAN network. Bonjour is a standardize protocol that allows for each device to find each other without a IP address or DNS server.

Bonjour Setting Procedure：

Step 1.

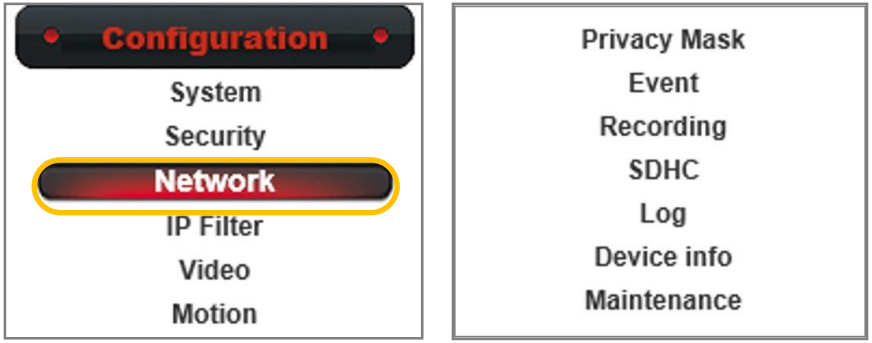
Select **Advanced** page under **Network** page.

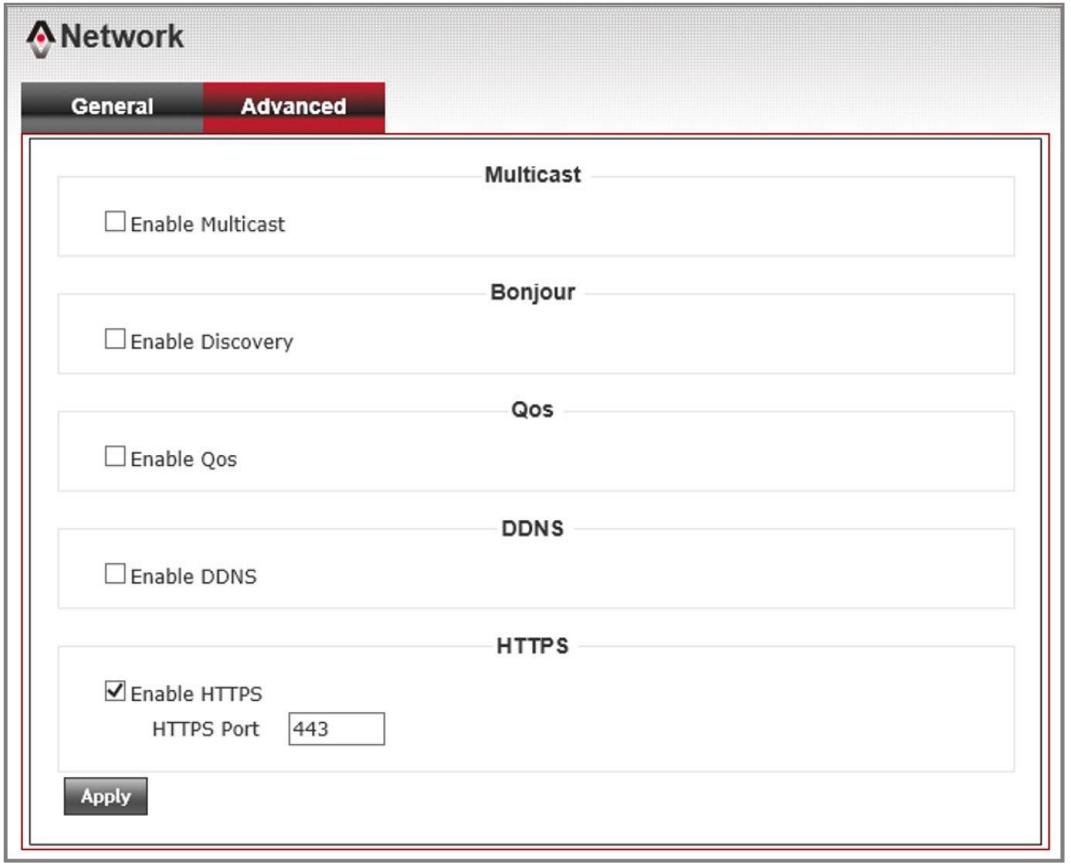
Step 2.

Select **Enable Bonjour.**

Step 3.

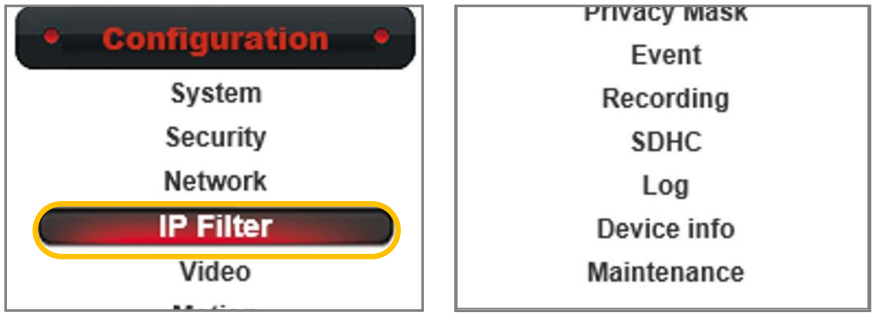
Press **Apply** to complete setting.

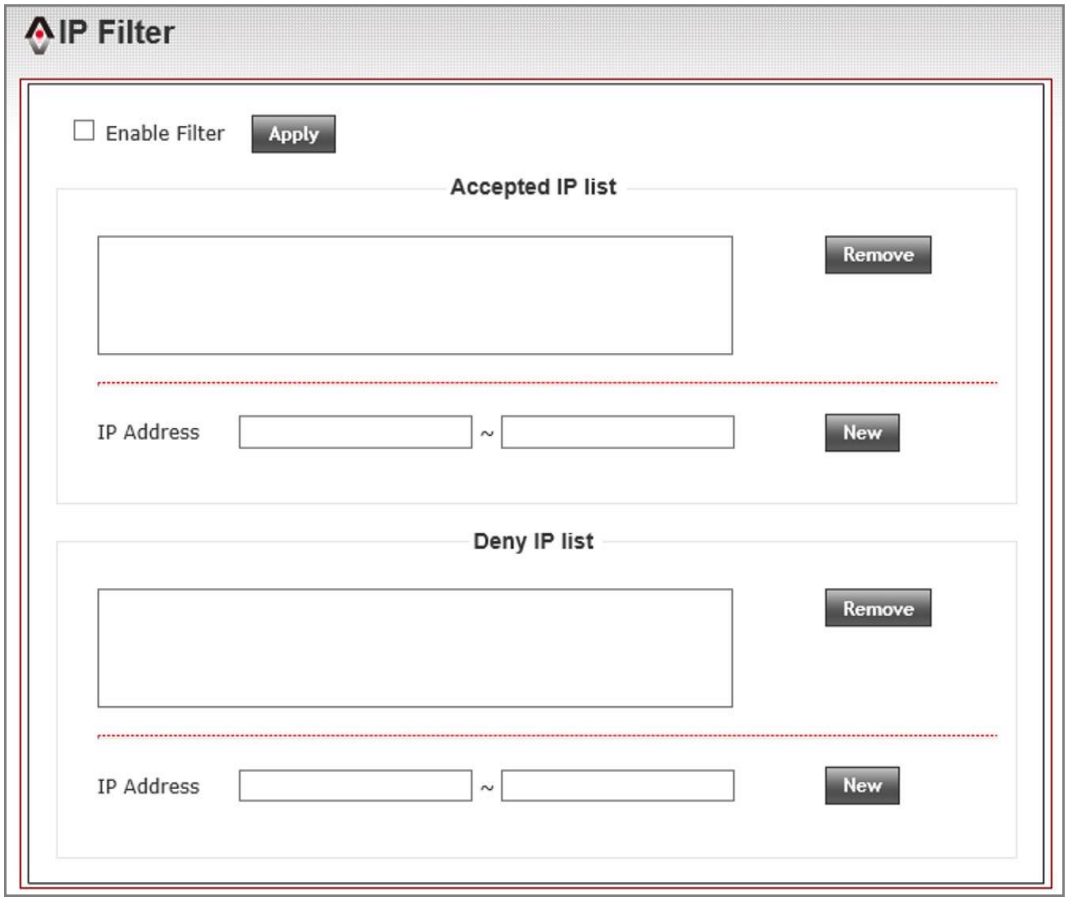




5.2.3. IP Filter

Smax network camera has an **IP Filter** function. It can manage to set a white list for **Accepted IP list** or black list for **Deny IP list.** We suggest to use one rule only to keep hte connecting performance. Normally, we use white list rule in a surveillance project.





IP Filter Setting Procedure：

Step 1.

Select **IP Filter** button under the **Configuration** menu.

Step 2.

Select **Enable IP Filter.**

Step 3.

Enter the IP List under **Accepted IP list** column, then press **New** button to add into white list.

Step 4.

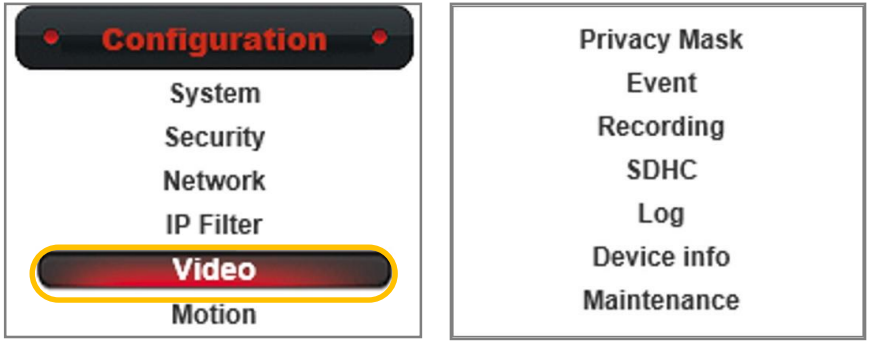
Press **Apply** to complete setting.

Notification：

Setting black list for **Deny IP list** is same as above procedure.

5.3. Video & Audio Setting

This chapter includes all video setting, image adjusting, and two ways audio setting. Please kindly follow below chapter instruction to set the video setting accordingly。



5.3.1. Video Setting

5.3.1.1. Main Stream Setting

Main Stream Setting Procedure：

Step 1.

Select **Video** button under the **Configuration** menu. Then goes to **Video Setting** page.

Step 2.

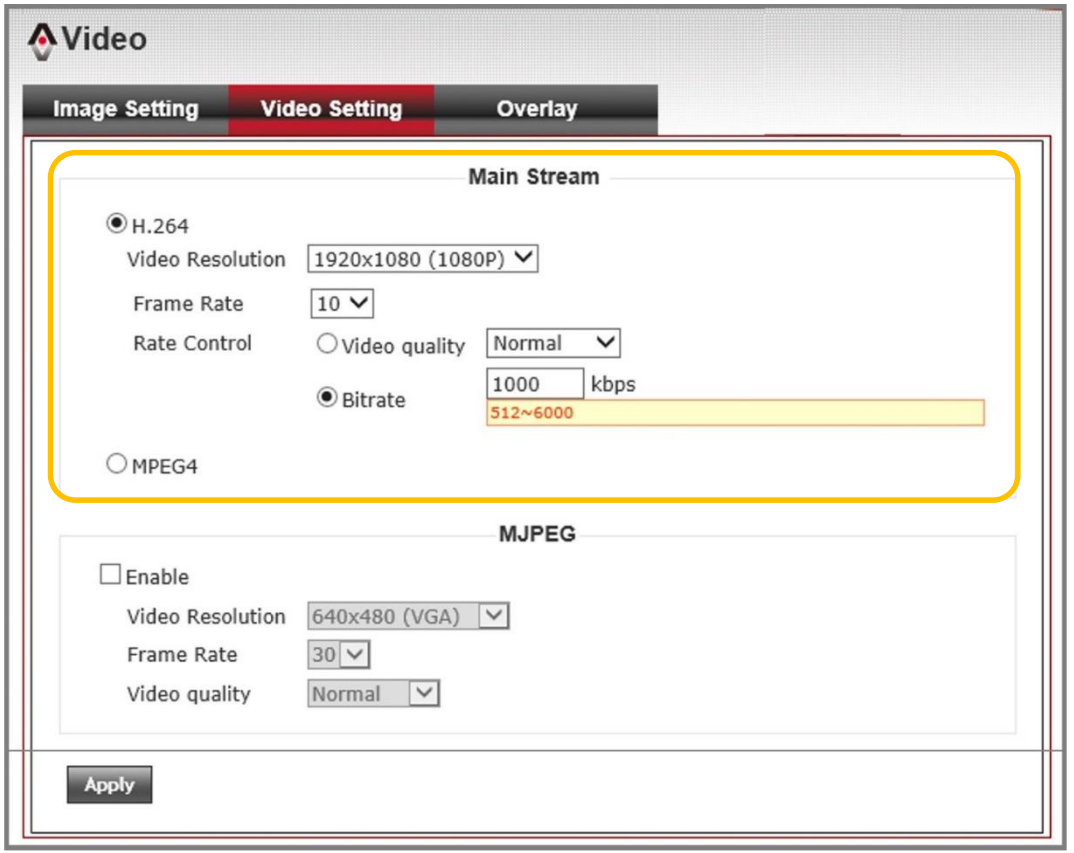
Select your desire format under the **Main Stream** column. Default set as **H.264** format. It can be changed to **MPEG-4** format.

Step 3.

Define your **Resolution, Frame Rate(fps).** Default set as **1920x1080 (1080P)** @ **30fps**.

Step 4.

Define your **Rate control** type. You can choose between **Video quality** or **Bitrate** comes first. Default set as constant Bitrate of **5000kbps.** Then press **Apply** to complete setting.



5.3.1.1. Main Stream Setting

Rate Control Setting Description:

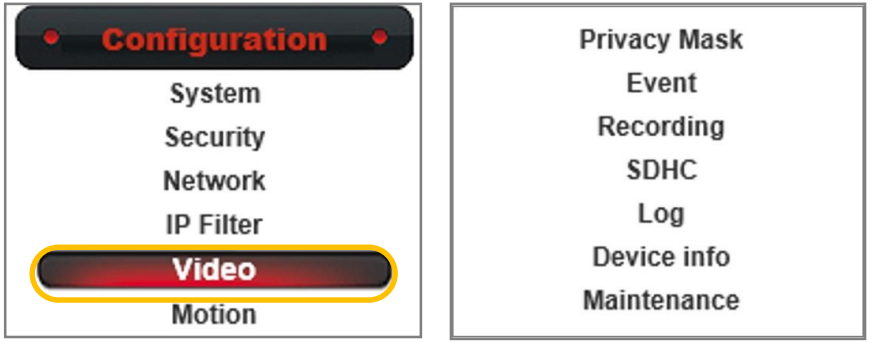
For a network camera only environment, we suggest to set the **Video quality** as **Normal.** If your surveillance environment is equip with NVR or NAS server for recording purpose, we suggest to set a constant **Bitrate** numbers**.**

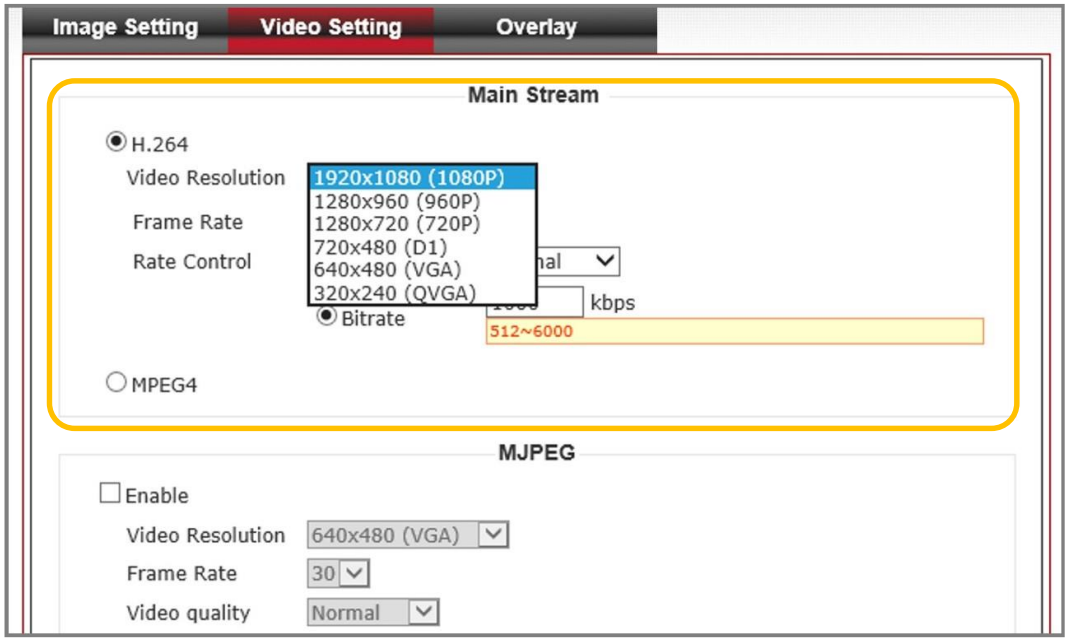
Below is a suggestion chart for the video quality setting depends on your environment.

Notification：

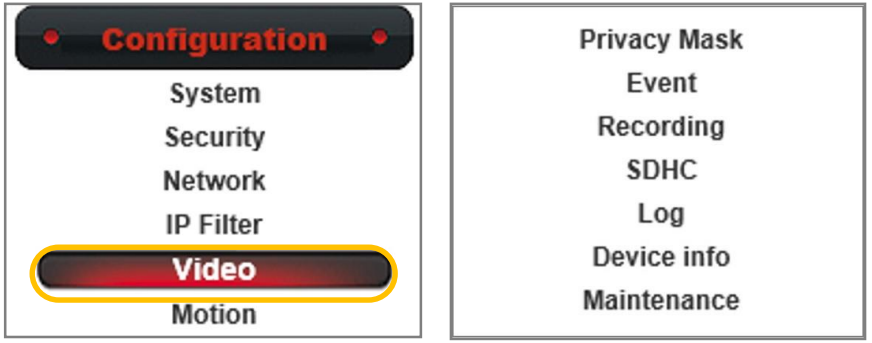
When changing resolution setting, it will erase your privacy mask setting.

Resolution	Fps	Bitrate suggestion
1920 x 1080	30	4000~6000 kbps
1920 x 1080	15	2000~3000 kbps
1920 x 1080	10	1000~2000 kbps
1280 x 960	30	2000~3500 kbps
1280 x 960	15	1000~2500 kbps
1280 x 720	15	800~2300 kbps
720 x 480	15	768~1500 kbps
640 x 480	15	512~1200 kbps
320 x 480	15	256~900 kbps





5.3.1.1. Main Stream Setting



Main Stream and Storage Calculation:

The best to set a constant **Bitrate** numbers is for easier calculation of recording storage space.

Calculation of storage space as below for each network camera records for one hour.

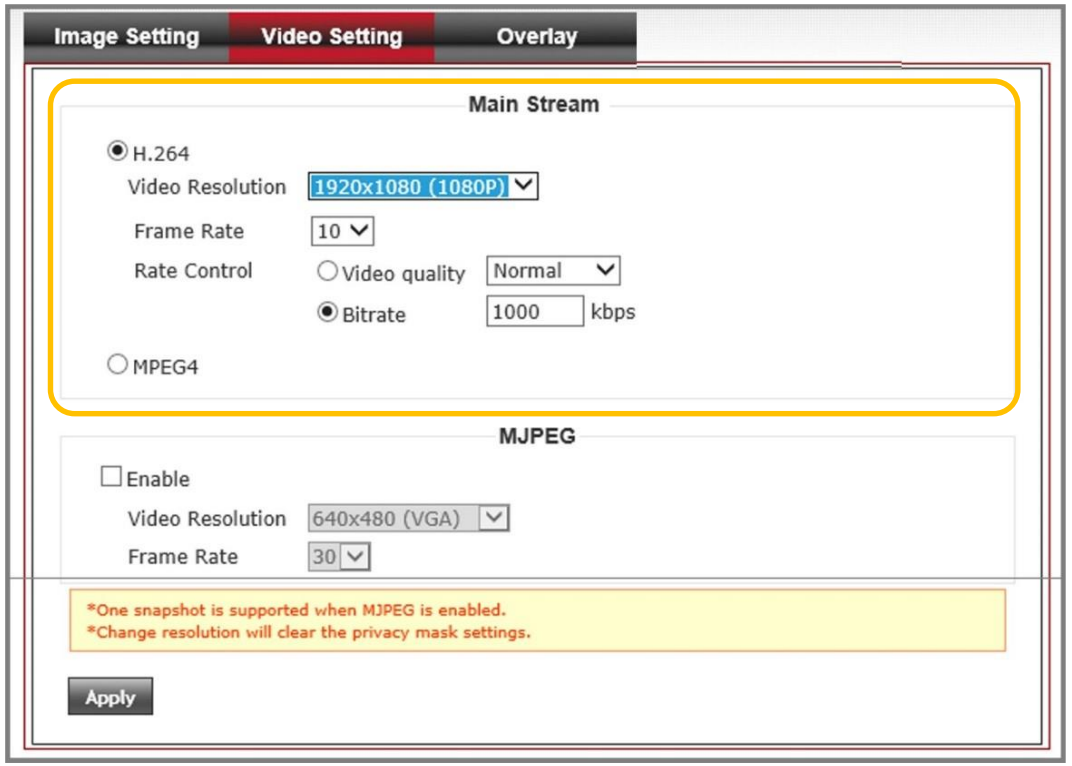
Bitrate(kbps) / 8 x 60(sec.) x 60(min.) / 1000 / 1000 = The storage space for each hour(GB)

Example Question：

If a camera set as 1920x1080 (1080P)@ 10fps, 1000kbps as Bitrate setting, how many space does a storage need to hold at least a monthly(30days) recording files?

Answer：

1000(kbps) / 8 x 60 x 60 / 1000 / 1000 x 24(hrs) x 30(days) = 324(GB) / 1000 = 0.324(TB)



5. 3 . 1 .2. Secondary Stream(MJPEG) Setting

Secondary Stream(MJPEG) Setting Procedure：

Step 1.

Select **Video** button under the **Configuration** menu. Then goes to **Video Setting** page and select **Enable** under **MJPEG** column.

Step 2.

Define your **Video Resolution.** There are three resolutions to choose from **720x480(Full D1)**, **640x480(VGA)** and **320x240(QVGA).**

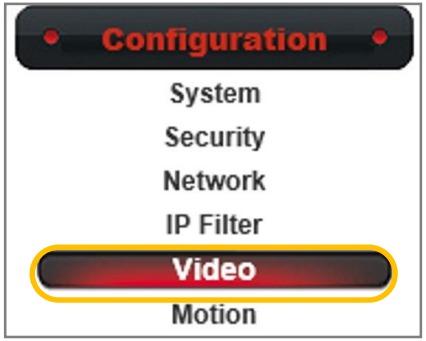
Step 3.

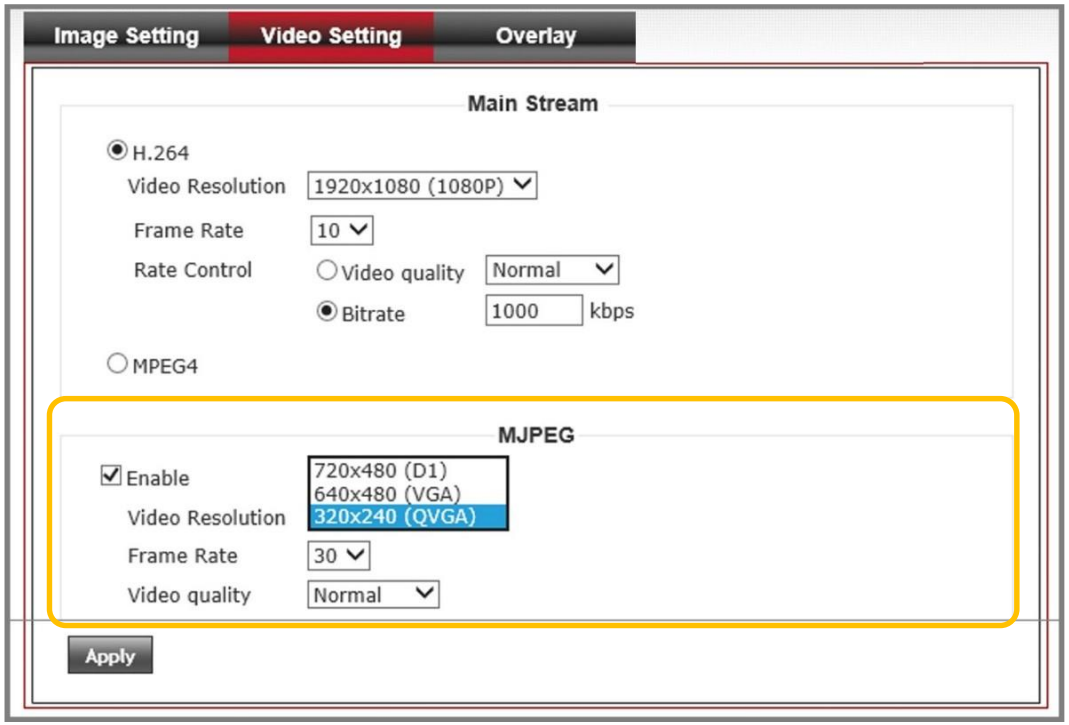
Define your **Frame Rate(fps)** and **Video Quality.** There are five segment of video quality from lowest to highest that you can choose from. Then press **Apply** to complete setting. We suggest to adjust this setting along side with the actual image.

Notification：

MJPEG compression rate is lower than H.264 and MPEG-4. But is best format for computer CPU performance when handling the image. Mostly applies to auto recognition application. The snapshot function only supports MJPEG format.

Resolution	Fps	Bitrate suggestion
720 x 480	5	Normal (1000~2000 kbps)
640 x 480	5	Normal (800~1800 kbps)
320 x 480	5	Normal (200~600 kbps)





5. 3 . 1 .3. Mobile View Setting

Mobile View Setting Procedure：

Step 1.

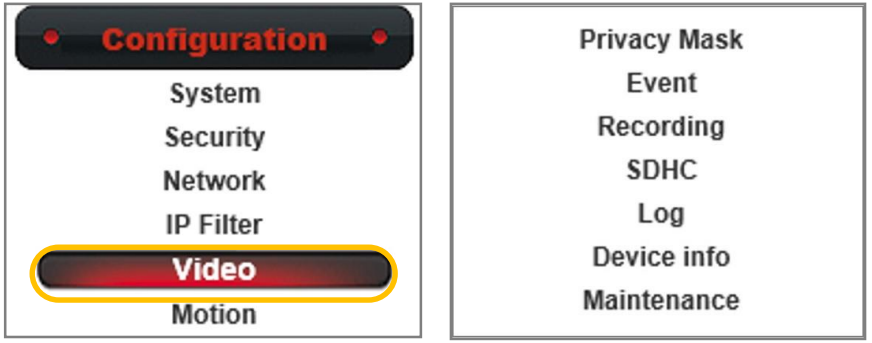
Select **Video** button under the **Configuration** menu. Then goes to **Video Setting** page and select **Enable** under **Mobile View** column.

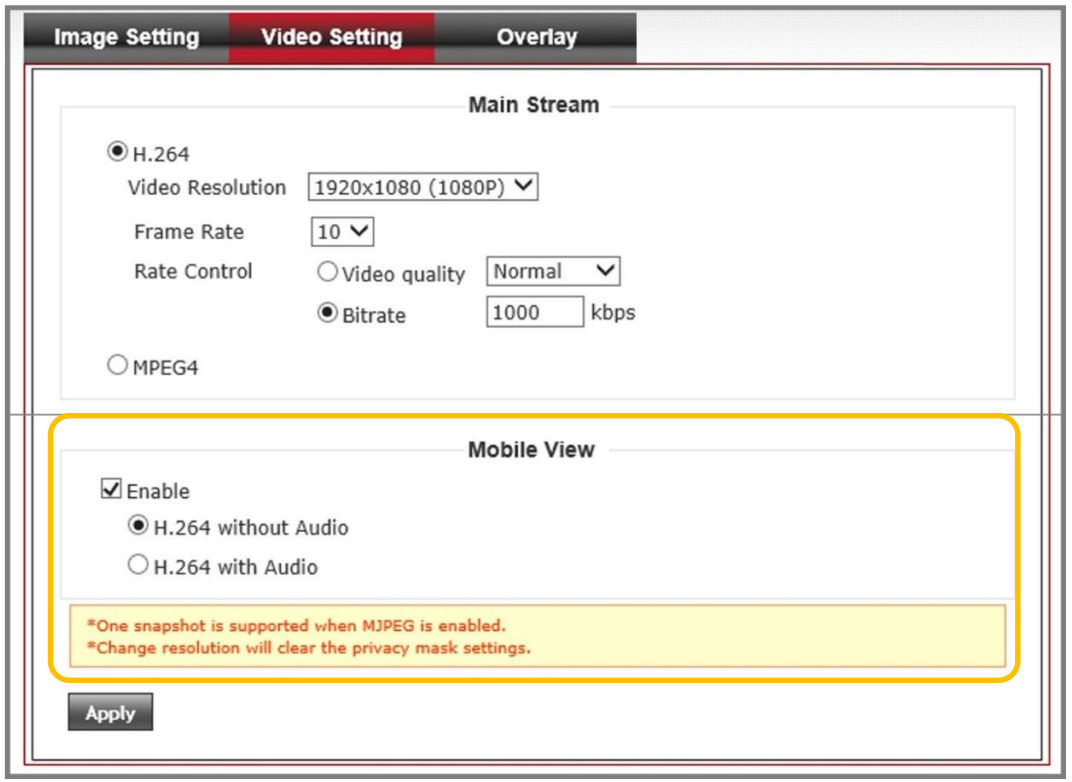
Step 2.

Select with or without audio depends on your setting.

Step 3.

Press **Apply** button to complete setting.





Notification：

Mobile stream is set as **H.264** format for better compression rate. So it can improves the transmit performance under the mobile network. Default resolution is set as **320x240, 30fps.** But the actual transfer speed is depends on your regional environment. The actual test result under Taiwan's 3G network is only up to 15~20fps.

Resolution	fps	Bitrate suggestion
320 x 240	Max. 30	Normal (500~1000 kbps)

5.3. 2 . Focus Setting

AV1 network camera is equip with **f=3.6mm fixed Lens.** In order to adjust the focus point, user needs to remove the top cover first.

Focus Setting Procedure：

Step 1.

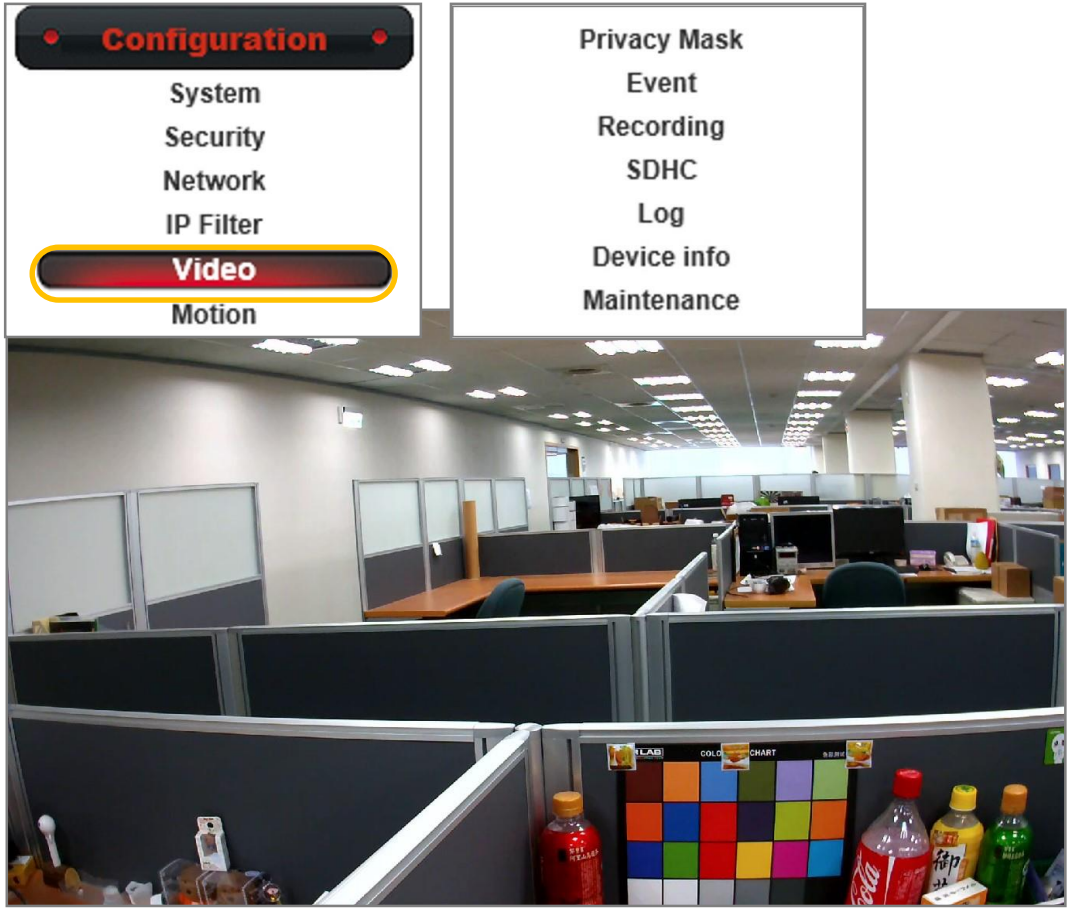
Please remove the top cover.

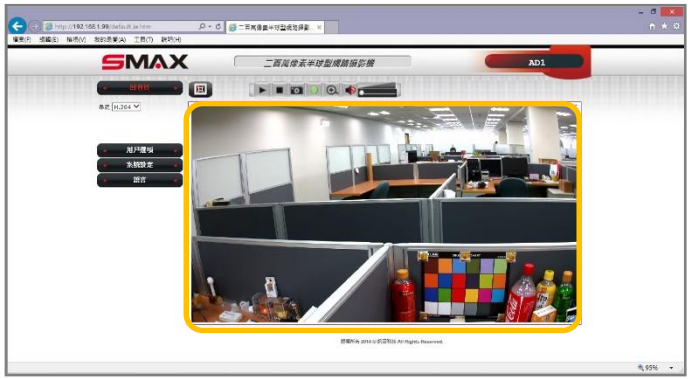
Step 2.

Set your browser to the main page and double click on the screen to the full screen mode. It is easier to set focus point.

Step 3.

Adjust the focus to get your desire clean view of your target by gently rotate the lens. Then put your top cover back on without touching the lens.



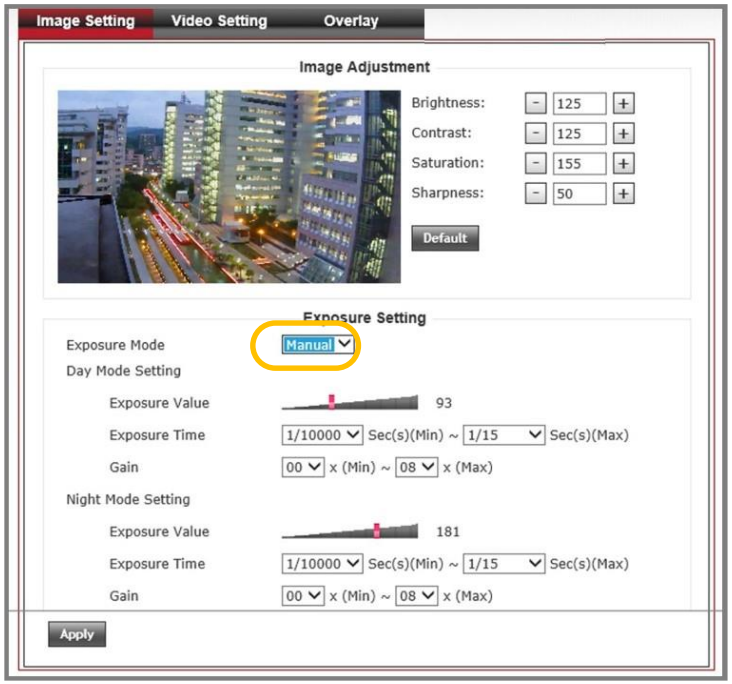


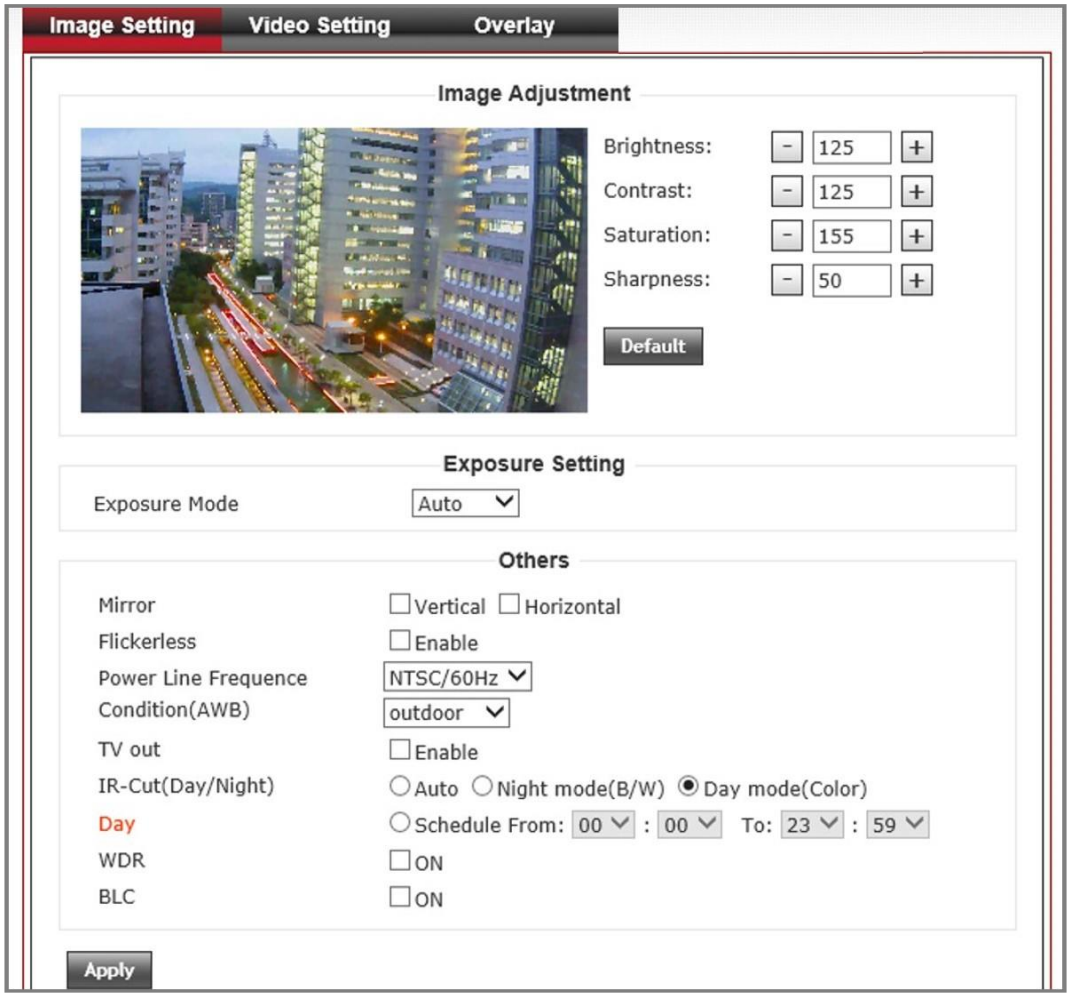
5.3.3. Image Setting

After complete your video setting, you may now start to adjust image setting. Please kindly follow below instructions about image setting and exposure setting to get your ideally image quality.

5. 3 .3. 1 . Exposure Setting

SMAX network camera supply two **Exposure Mode.** Default set as **Auto** mode. User can change to **Manual** mode for further exposure setting of day and night mode.





5. 3 .3. 1 . Exposure Setting

Exposure Setting Procedure：

Step 1.

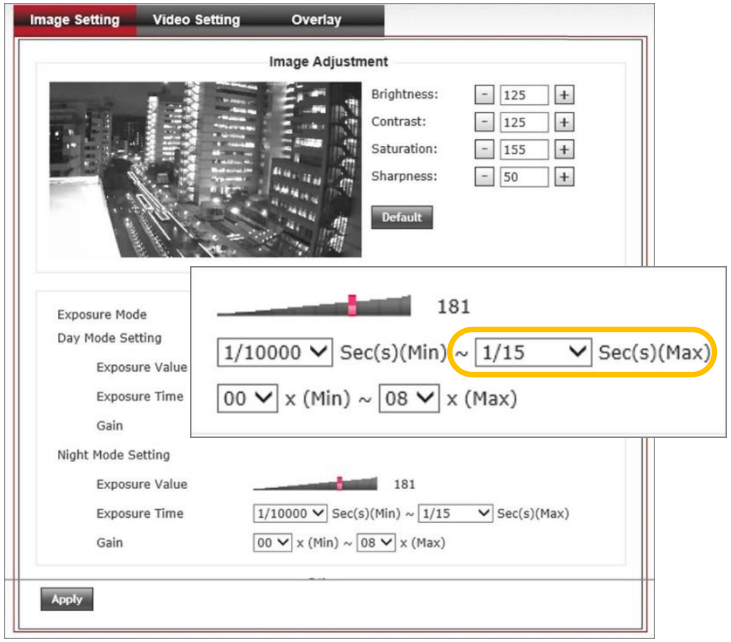
Select **Video** button under the **Configuration** menu. Then goes to **Image setting** page and change the **Exposure Mode** from **Auto** to **Manual.**

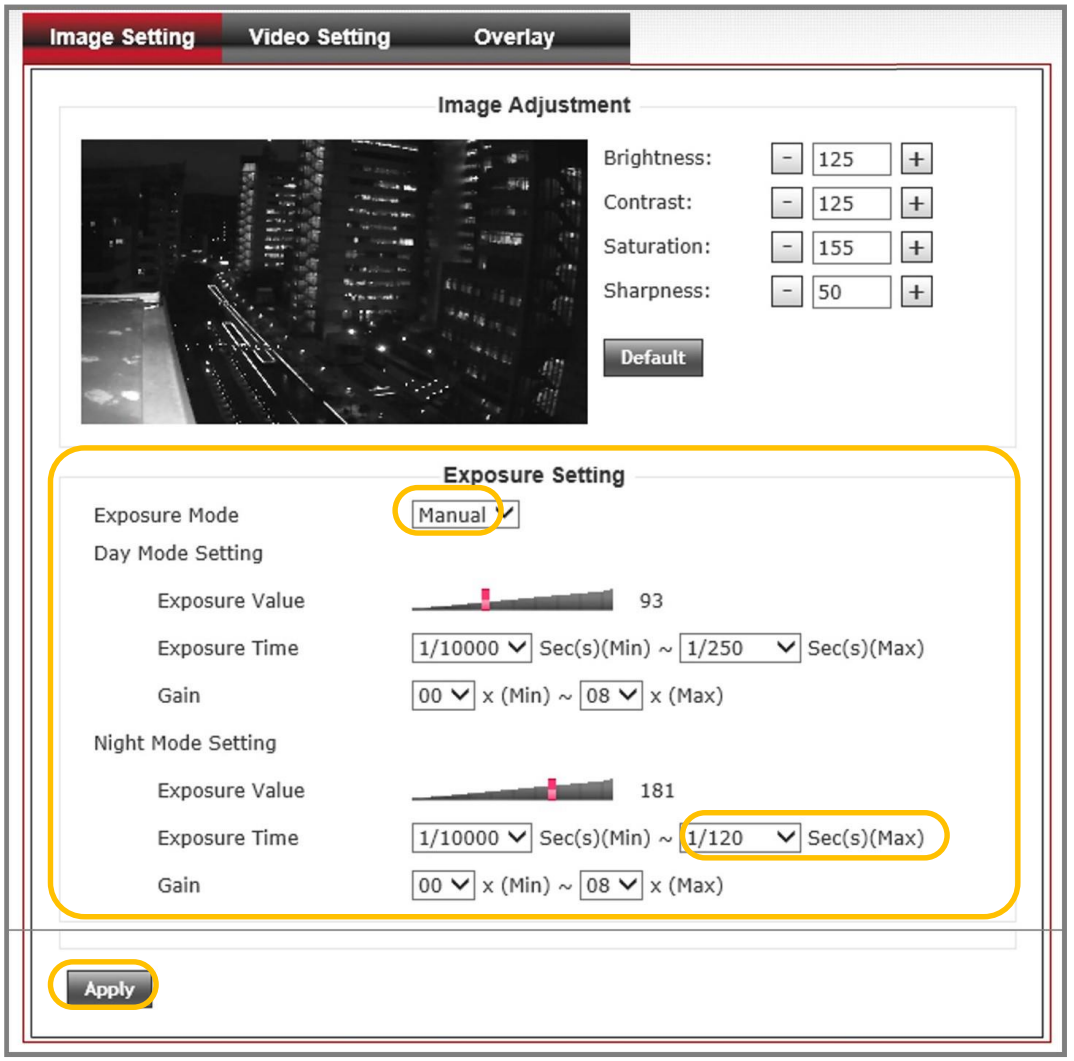
Step 2.

As an example picture on the right, the image is too dark during the night mode. So we can manually adjust the maximum **Exposure Time** to **1/15 Seconds.**

Step 3.

Press **Apply** button to complete setting and get a better image quality as shown in below picture.





5. 3 .3.2. Image Setting

Image Setting Procedure：

Step 1.

Select **Video** button under the **Configuration** menu. Then goes to **Image setting** page.

Step 2.

Please enter appropriate **Brightness, Contrast, Saturation and Sharpness** numbers. Or use **+** and **–** button to do the adjusting.

Step 3.

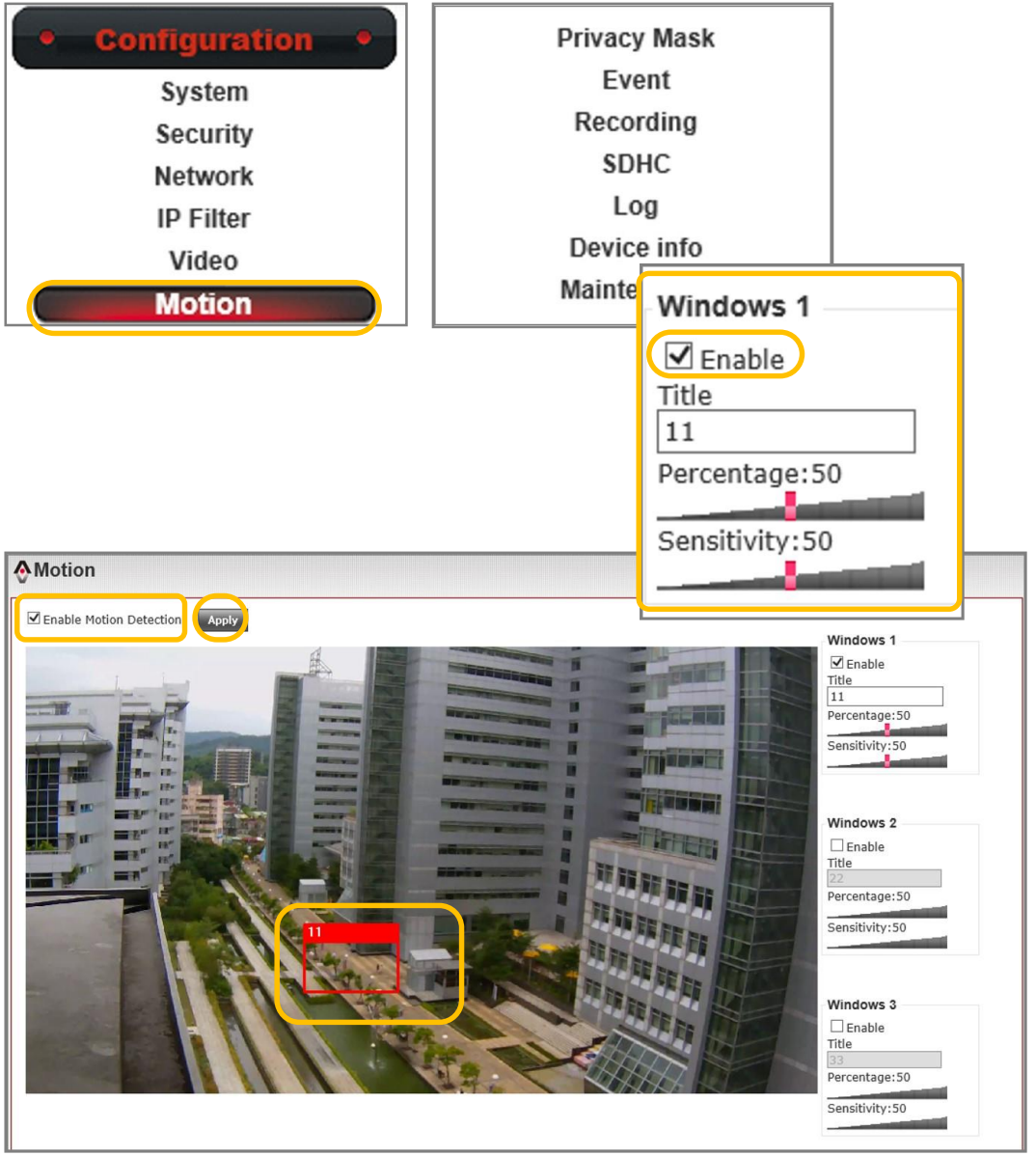
When above four numbers has changed, you can check the difference on the image. If reach to your ideally result. Then press **Apply** button to complete image settings.

Notification：

The range of **Brightness, Contrast, Saturation and Sharpness** numbers are from **0~255.** Press **Default** button if you wish to go back to the original factory setting. Then press **Apply** button to complete image settings. These four numbers result might be different depends on different model.

5.3.2. Motion Detection

Motion Detection function allows you to set up to three windows on the screen. So these selected areas can detect motion base on the **Percentage** and **Sensitivity** numbers that you input.



Motion Detection Setting Procedure：

Step 1.

Select **Motion Detection** button under the **Configuration** menu.

Step 2.

Select **Enable Privacy Mask,** then select **Enable** under **Windows 1** column and define a **Title** to this windows.

Step 3.

Move and resize the **Windows 1** windows and drag to the place on the screen that you wish to detect.

Step 4.

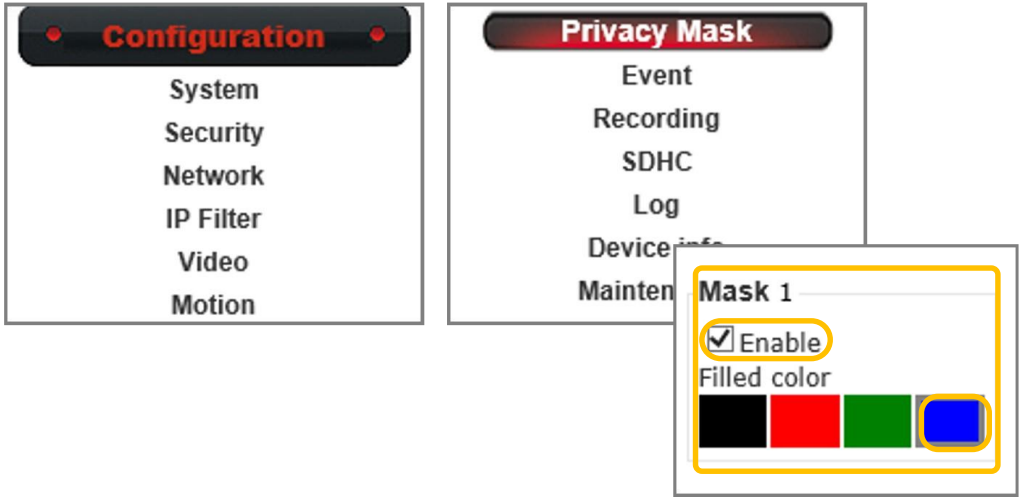
Adjust **Percentage** and **Sensitivity** numbers to get a best motion detecting trigger.

Step 5.

Press **Apply** button to complete **Windows 1** setting. If wish to set up **Windows 2** and **Windows 3,** please repeat above procedure.

5.3.3. Privacy Mask

Privacy Mask function allows you to set up to three privacy mask that covers on your live view screen. It can be selected as different color with different mask. Once the mask has been set, the live view screen will no longer display those selected area.



Privacy Mask Setting Procedure：

Step 1.

Select **Privacy Mask** button under the **Configuration** menu.

Step 2.

Select **Enable Privacy Mask,** then select **Enable** under **Mask 1** column.

Step 3.

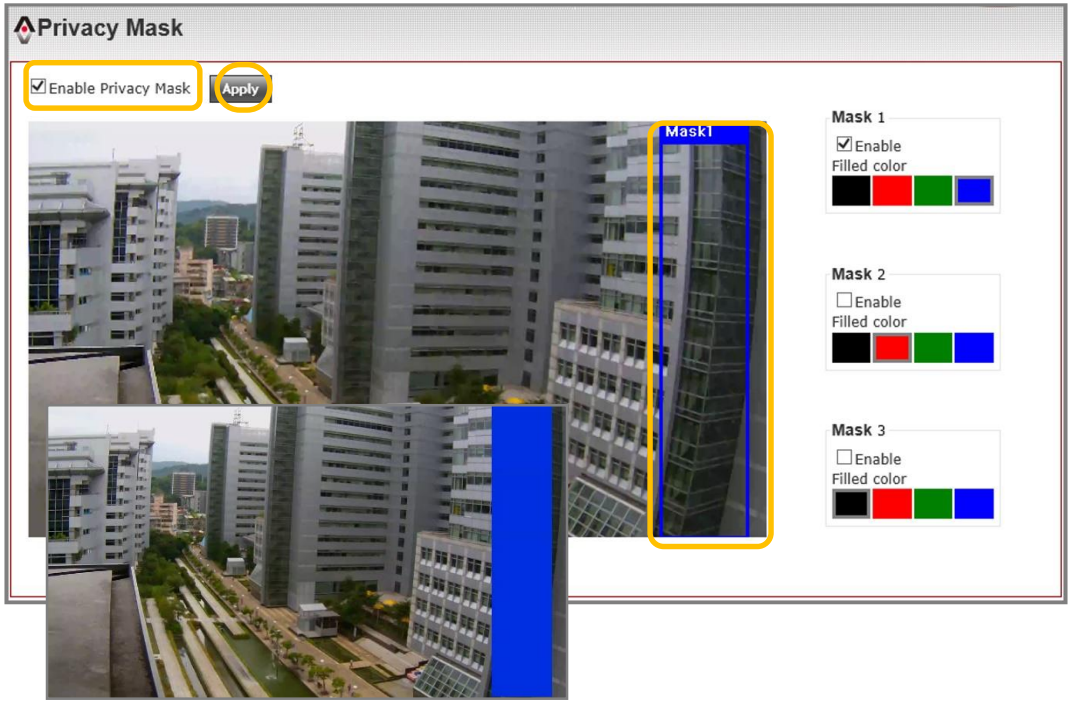
Move and resize the **Mask 1** windows and drag to the place on the screen that you wish to cover.

Step 4.

Select mask 1 **Filled Color.**

Step 5.

Press **Apply** button to complete **Mask 1** setting. If wish to set up **Mask 2** and **Mask 3,** please repeat above procedure.



5.3.5. Audio Settings

SMAX AV1 network camera is equip with two ways audio function. It can connect to a microphone or a speaker. You may enable microphone function with a NVR or SMAX VMS for sound recording function. Or you may enable speaker function for brow casting function.

Two ways audio setting procedure：

Step 1.

Select **Audio** button under the **Configuration** menu.

Step 2.

Select **Enable Microphone.** Then select **Audio Type and Microphone Gain** settings.

Step 3.

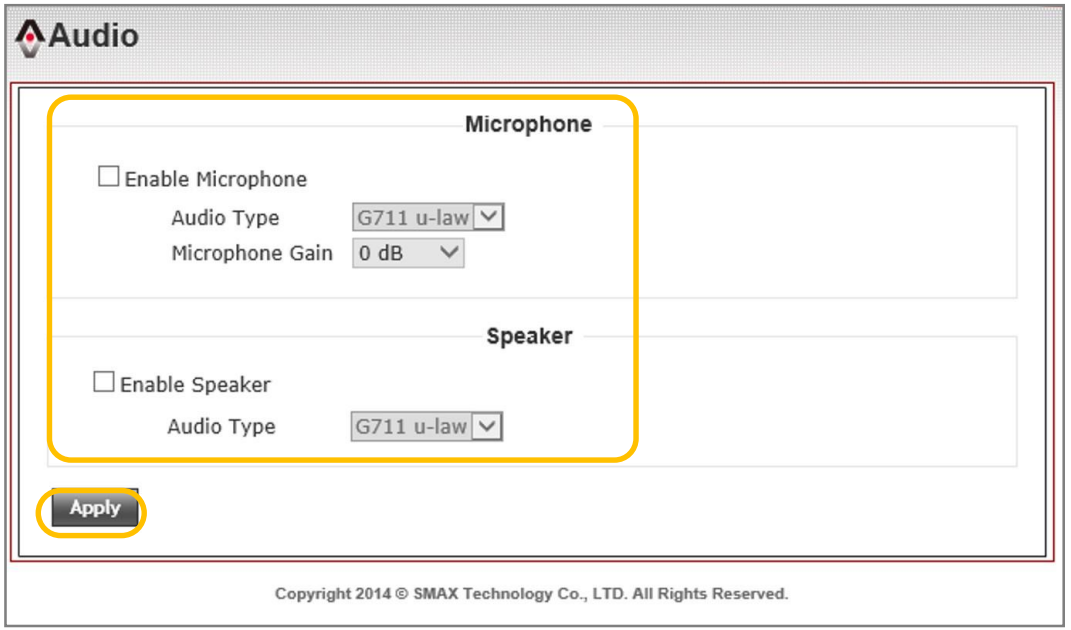
Select **Enable Speaker.** Then select **Audio Type.**

Step 4.

Press **Apply** button to complete setting.

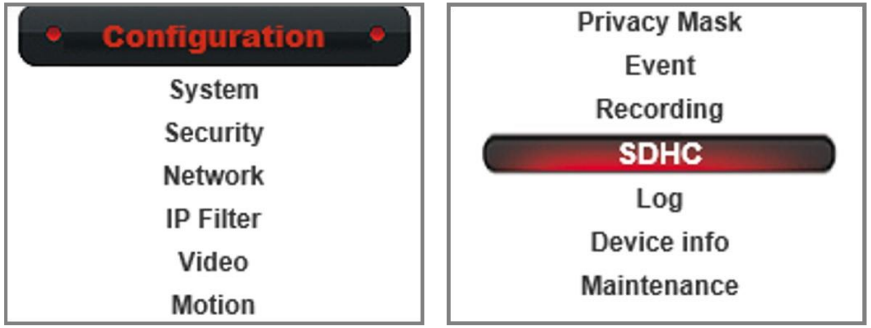
Notification：

SMAX network camera's audio might be differ from a different model. For certain model has already built in microphone.



5.4. SD Card Settings

Smax GU1 has built in micro SD card slot for continuous, schedule, event and alarm recording function. It also supply for searching recorded file. SDHC card maximum memory size is up to 32GB.



5.4.1. SDHC

Setting new SD card procedure：

Step 1.

Select **SDHC** button under the **Configuration** menu.

Step 2.

Select the **Status** page. If cannot see any SD card status, please make sure the SD card is properly insert. Then press **Refresh** button to make sure you can see the storage capacity status of the SD card.

Step 3.

When first use a newly insert SD card, please first press the **Format** button to run the format procedure by SMAX network camera. It will pop out a confirmation windows. Press **Yes** to continues process. It will also show a successful message after the format process is complete. Also press **Yes** to finish setting.

5.4.2. Recording

Recording to SD card procedure：

Step 1.

Select **Recording** button under the **Configuration** menu.

Step 2.

Select **Enable External storage Recording** function and set the maximum size of each recording file. We suggest to set 50MB as the maximum.

Step 3.

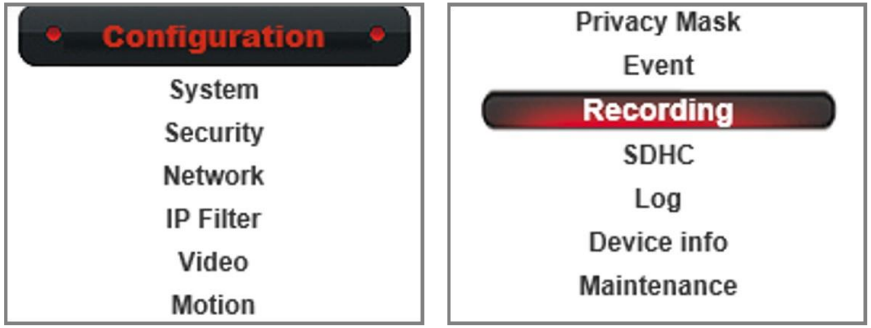
Arrange your recoding schedule of day and time under the **Recording Schedule** column.

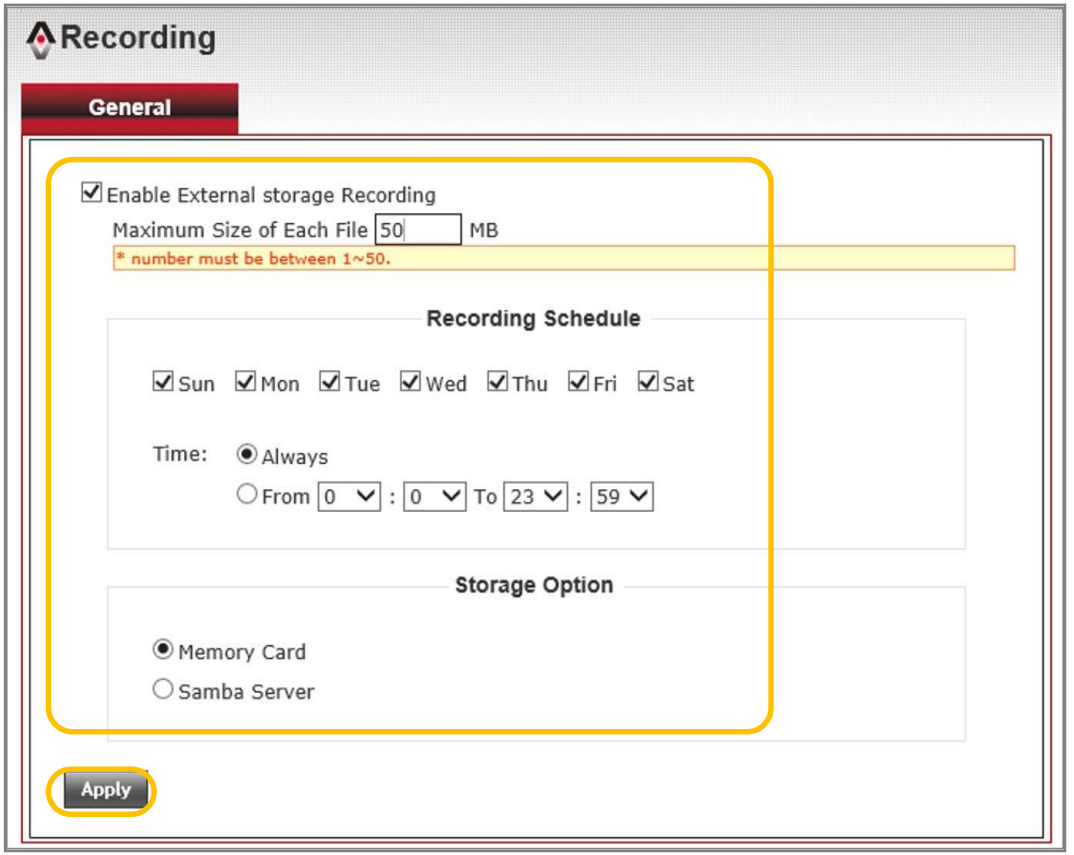
Step 4.

Select save to **Memory card** under the **Storage Option** column. Then press **Apply** button to finish setting.

Notification：

Under the **Enable External storage Recording** column. You can also choose to save your recoding file to a **Samba Server.** For the limitation of each recording file size is from 1~50MB. Each recording file length will depends on the setting of your recording stream.





5.4.3. SD Card Recoding Search

SD card recoding search procedure：

Step 1.

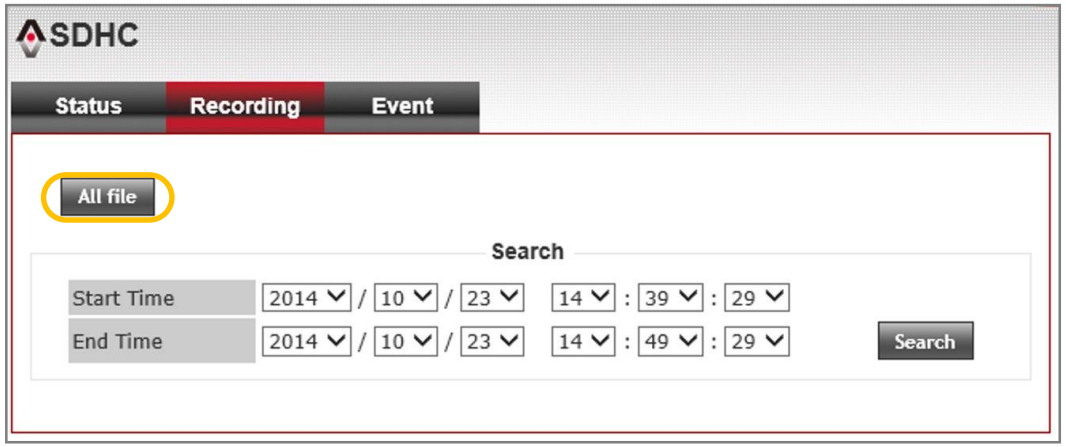
Select **Recording** button under the **SDHC** page.

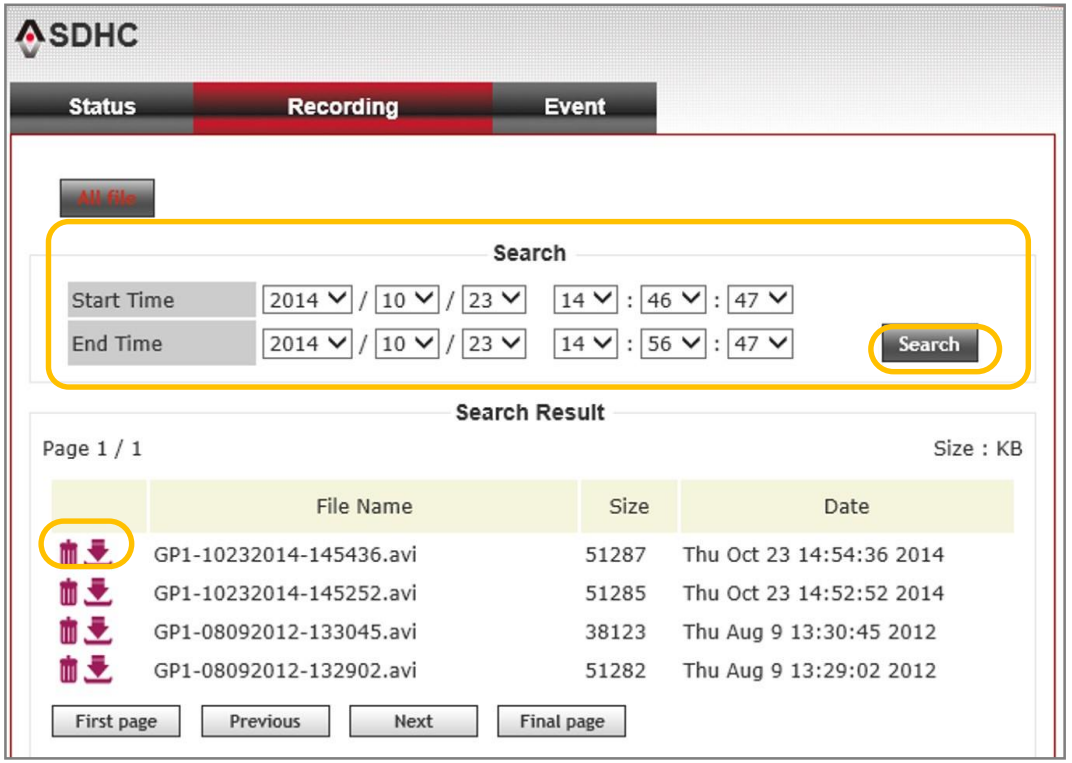
Step 2.

Press **All file** button to see all recoding files from the SD memory card. Or you can search a specific period of recoding file by define your desire **Start Time** and **End Time.** Then press **Search** button to sort the recording files within this period.

Step 3.

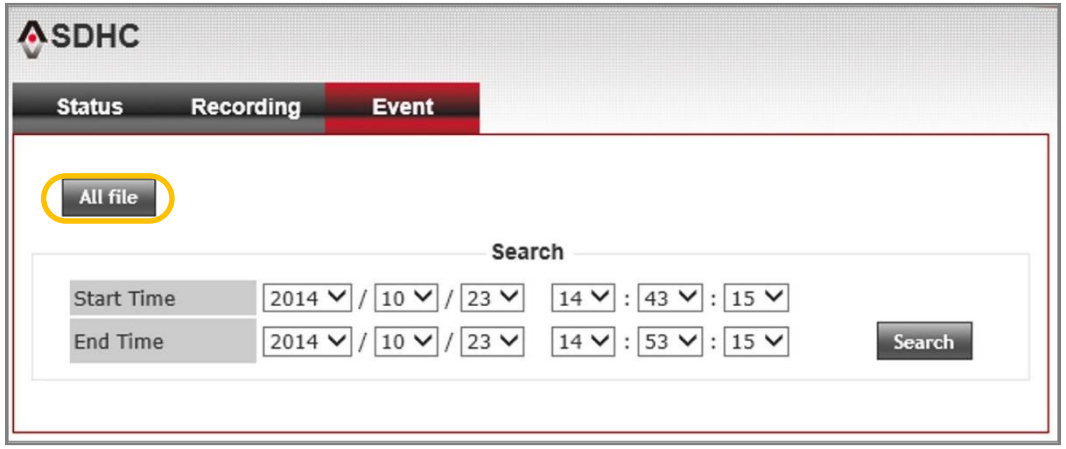
For all searched recording files, you can choose to download to your computer or to delete file from memory card.





5.4.3. SD Card Event Recoding Search

When the event recording was triggered and saves to SD memory card. You can search all event files within **Event** page.



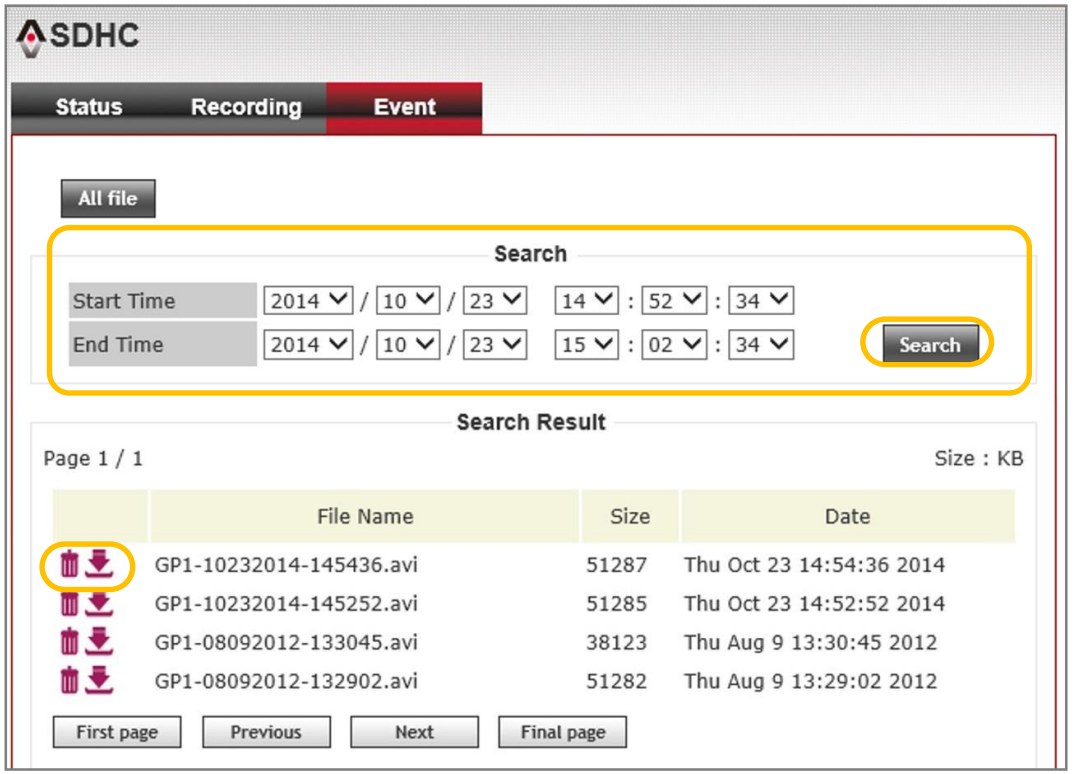
SD card event recoding search procedure：

Step 1.

Select **Event** button under the **SDHC** page.

Step 2.

Press **All file** button to see all event recoding files from the SD memory card. Or you can search a specific period of event recoding file by define your desire **Start Time** and **End Time.** Then press **Search** button to sort the event recording files within this period.



Step 3.

For all searched event recording files, you can choose to download to your computer or to delete file from memory card.

5.5. Event Settings

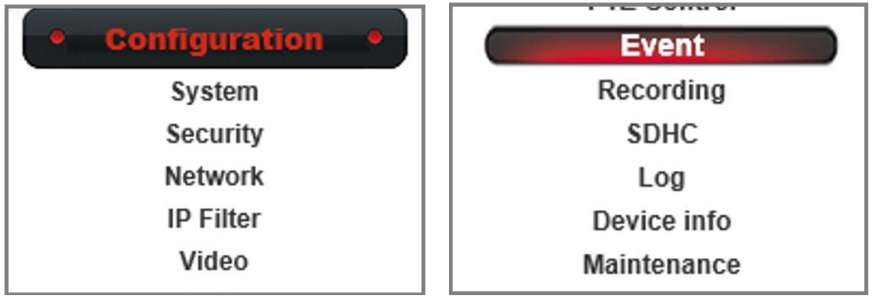
Event setting function is to define a event trigger so the network camera can proceed an action base on this setting. You can set multiple event setting base on different needs of different applications.

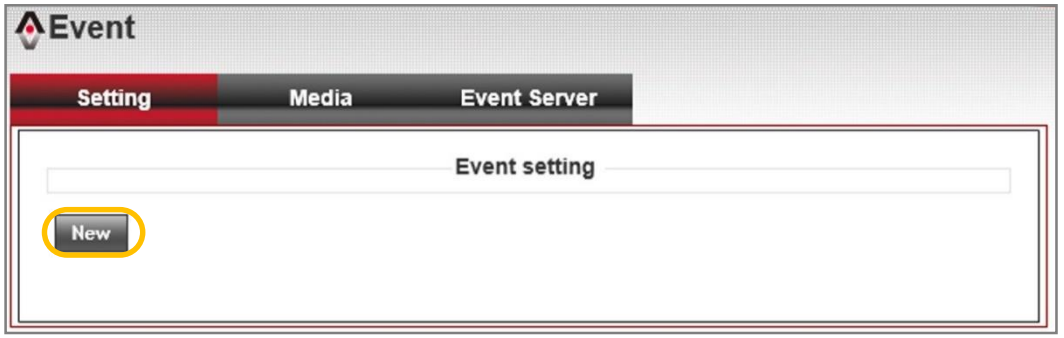
SMAX network camera has two was of event trigger settings：

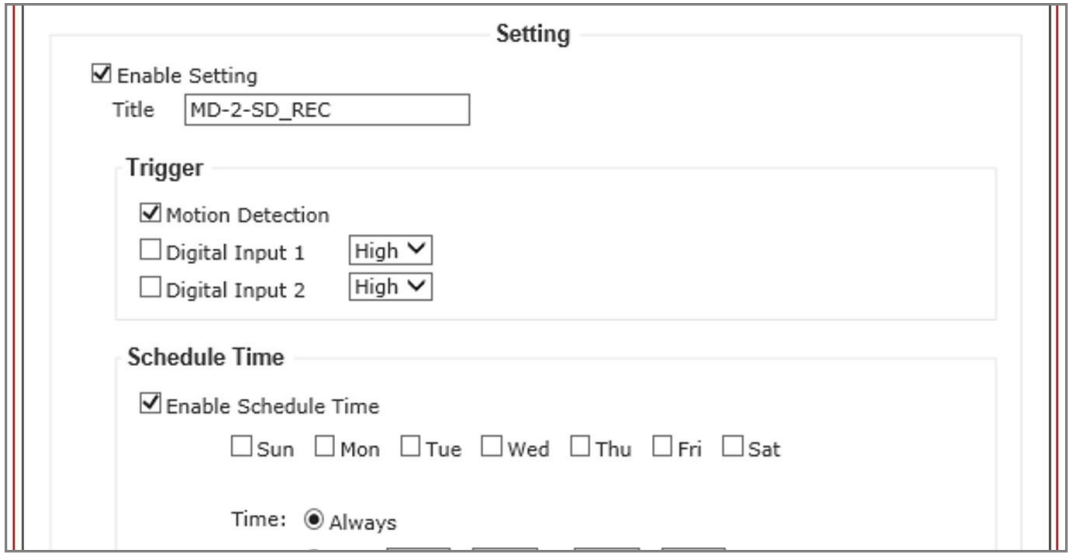
1) **Motion Detection**
2) **Digital Input signal**

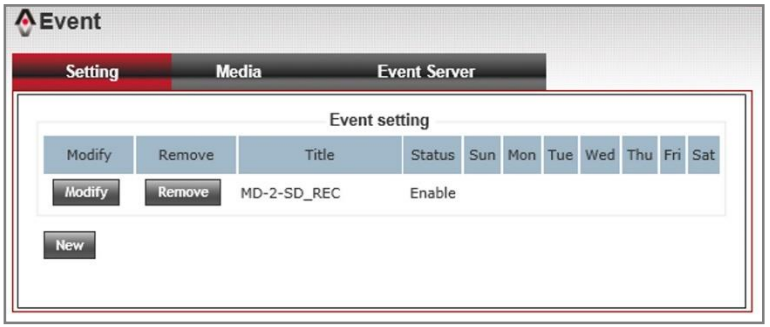
Proceed actions includes：

1) **Send to FTP**
2) **Send to Email**
3) **Apply to Samba**
4) **Apply to SD Card**
5) **Trigger Digital Output**



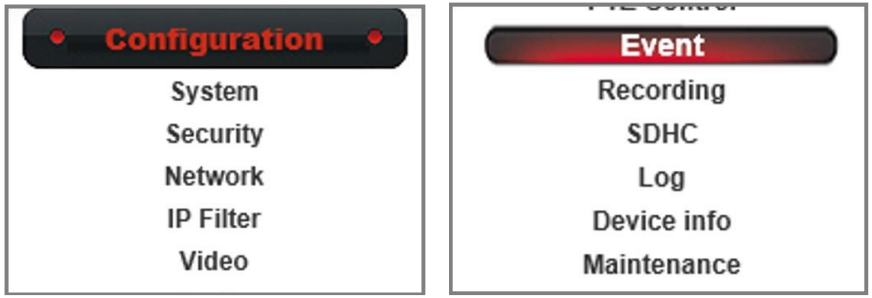






5.5.1. Event Server

Below is a description of **Event Server.** Before you set a new event, you can define a details of remote media server: **FTP , SMTP and Samba**. After setting, all event can proceed to your define FTP, SMTP or Samba Server by sending snapshots, e-mail or recording files.



5.5.1.1. FTP Server

FTP Server setting procedure：

Step 1.

Select **Even** button under the **Configuration** menu. Then select **Event server** page.

Step 2.

Select **Enable FTP server.** Then enter your FTP server's **IP address, Port, Username, Password and File path Name.** You may select **Enable Passive Mode** depends on your FTP server type.

Notification：

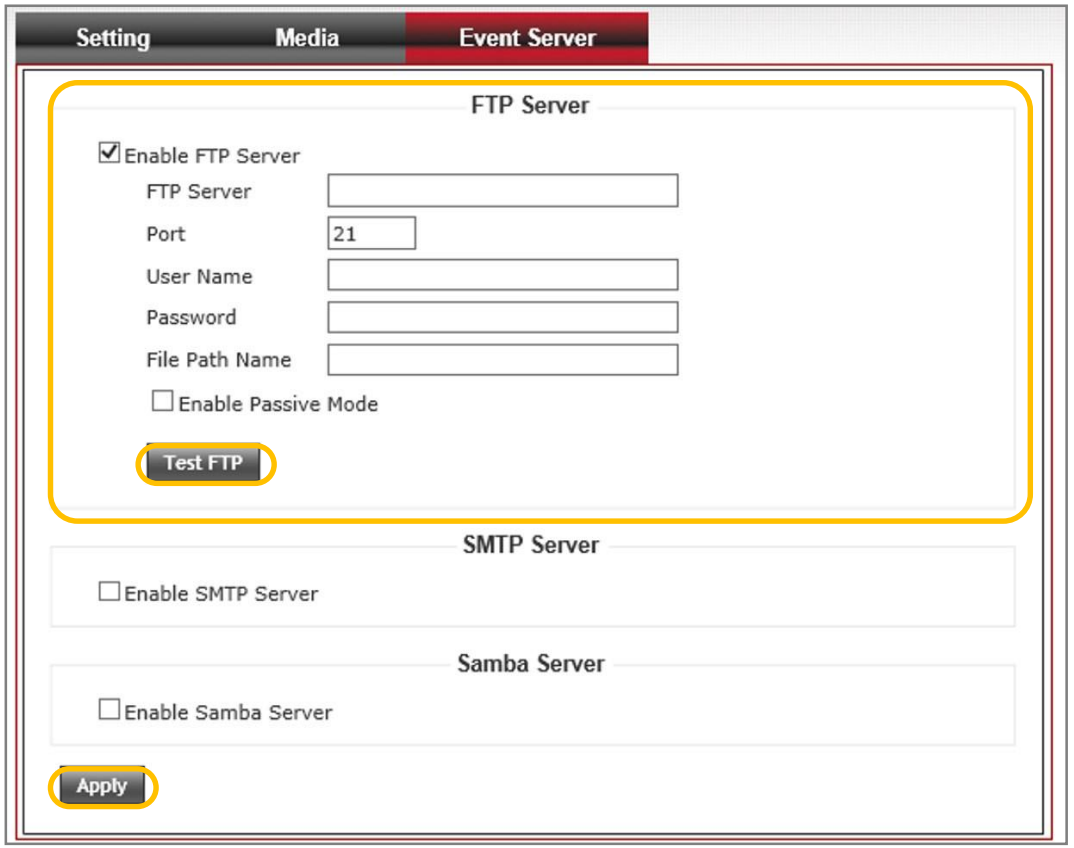
Default **FTP Port** is set as **21**.

Step 3.

Press **Test FTP** button to check if the FTP connection is successfully established.

Step 4.

Press **Apply** button to complete setting.



5.5.1.2. SMTP Server

The main function of a SMTP server it to send an e-mail message when event was triggered.

SMTP Server setting procedure：

Step 1.

Select **Event** button under the **Configuration** menu. Then select **Event server** page.

Step 2.

Select **Enable SMTP server.** Then enter your SMTP server's **IP address, Port, Sender e-mail address, Receiver #1 and #2 e-mail address and Subject.** Also need to select whether there is an authentication where the **Username and Password** need to be set. You may select **Require SSL Encryption and Start TLS** depends on your desire.

Notification：

Default **SMTP Port** is set as **25**. Suggest to name your e-mail subject as your device name for easy reference.

Step 3.

Press **Test SMTP** button to check if the SMTP connection is successfully established.

Step 4.

Press **Apply** button to complete setting.

5.5.1.3. Samba Server

Samba Server setting procedure：

Step 1.

Select **Event** button under the **Configuration** menu. Then select **Event server** page.

Step 2.

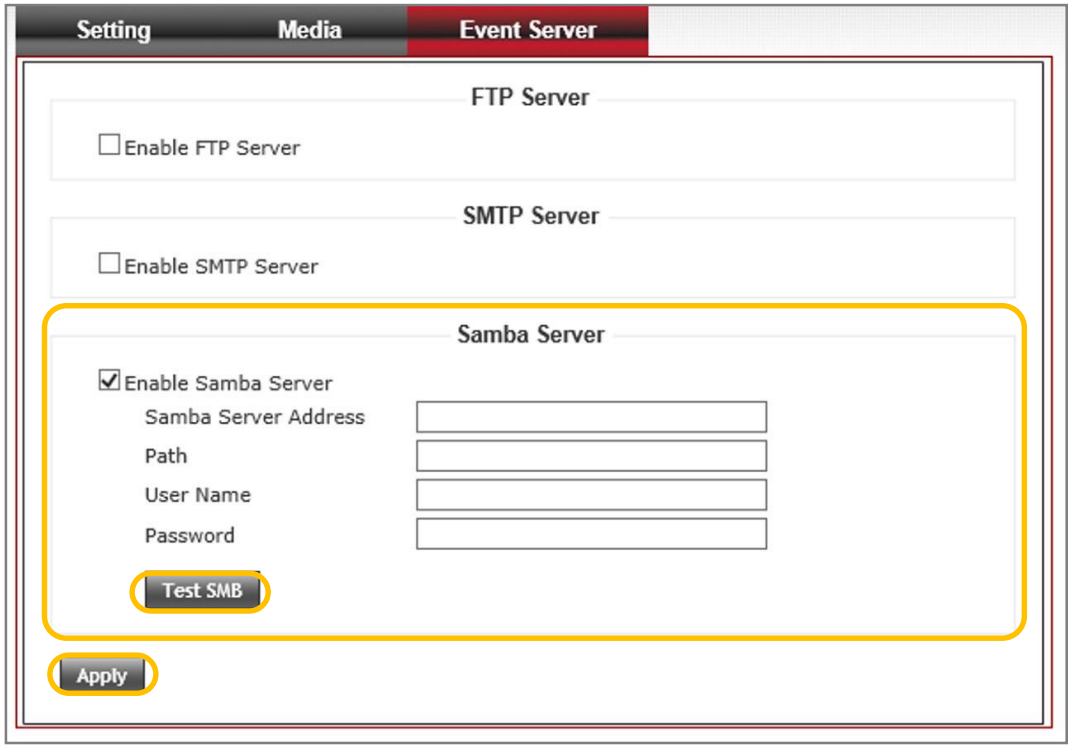
Select **Enable Samba server.** Then enter your Samba server's **IP address, Storage Path, Username and Password.**

Step 3.

Press **Test SMB** button to check if the Samba connection is successfully established.

Step 4.

Press **Apply** button to complete setting.



5.5.2. Media setting

Media setting is to define what kind of media files should be save when a event was triggered. You can sent a snapshot or an event recoding file to your event server.

Media setting procedure：

Step 1.

Select **Event** button under the **Configuration** menu. Then select **Media** page.

Step 2.

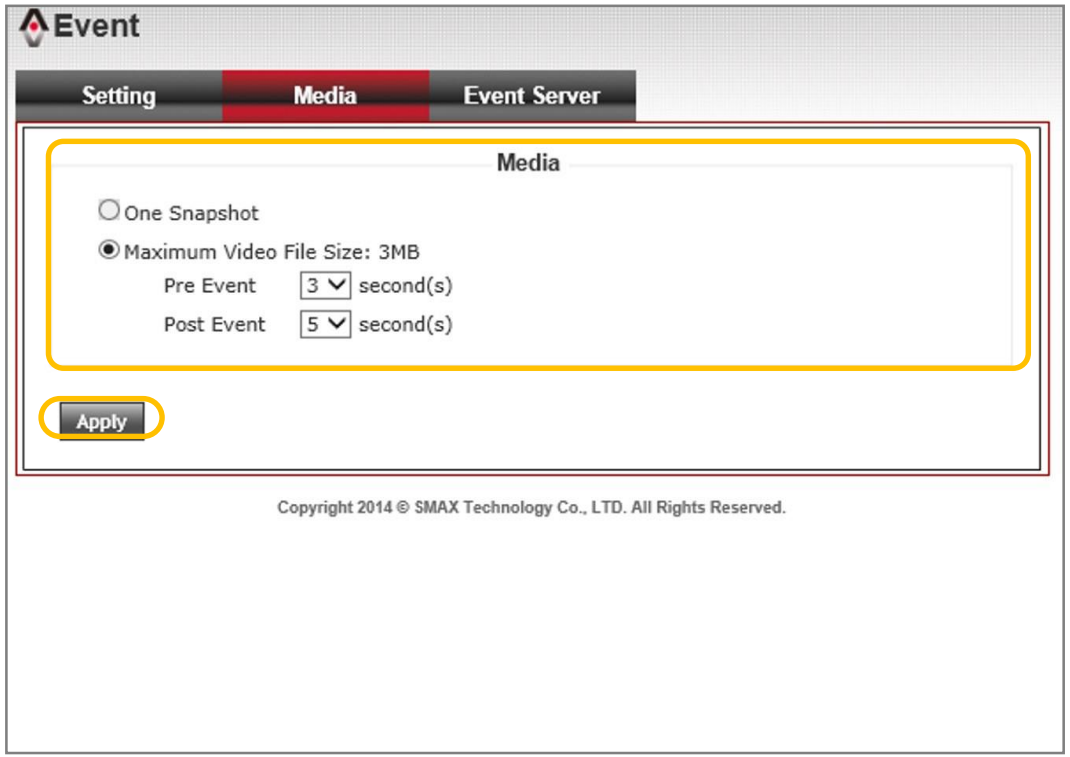
Select **Snapshot or Video** as your desire. You can set the pre and post event time when select video. The length of **Pre Even and Post Event** are both 0~5 seconds.

Notification：

The maximum event recording file size is 3MB. Please do not set the pre and post event time as 0 seconds to prevent error. We suggest to set the pre event as 2 seconds and post event as 3 seconds.

Step 3.

Press **Apply** button to complete setting.



5.5.3. Adding New Event Setting

Below is an example procedure for adding a new event. It is trigger by motion detection. Schedule time set as always alert. And the action set to trigger SD care recording and digital output alarm.

Example of adding new event procedure：

Step 1.

Select **Event** button under the **Configuration** menu.

Step 2.

Select **New** button to the **Setting** page.

Step 3.

Select **Enable Setting** and define your event title.

Step 4.

Select **Motion Detection** as a trigger.

Step 5.

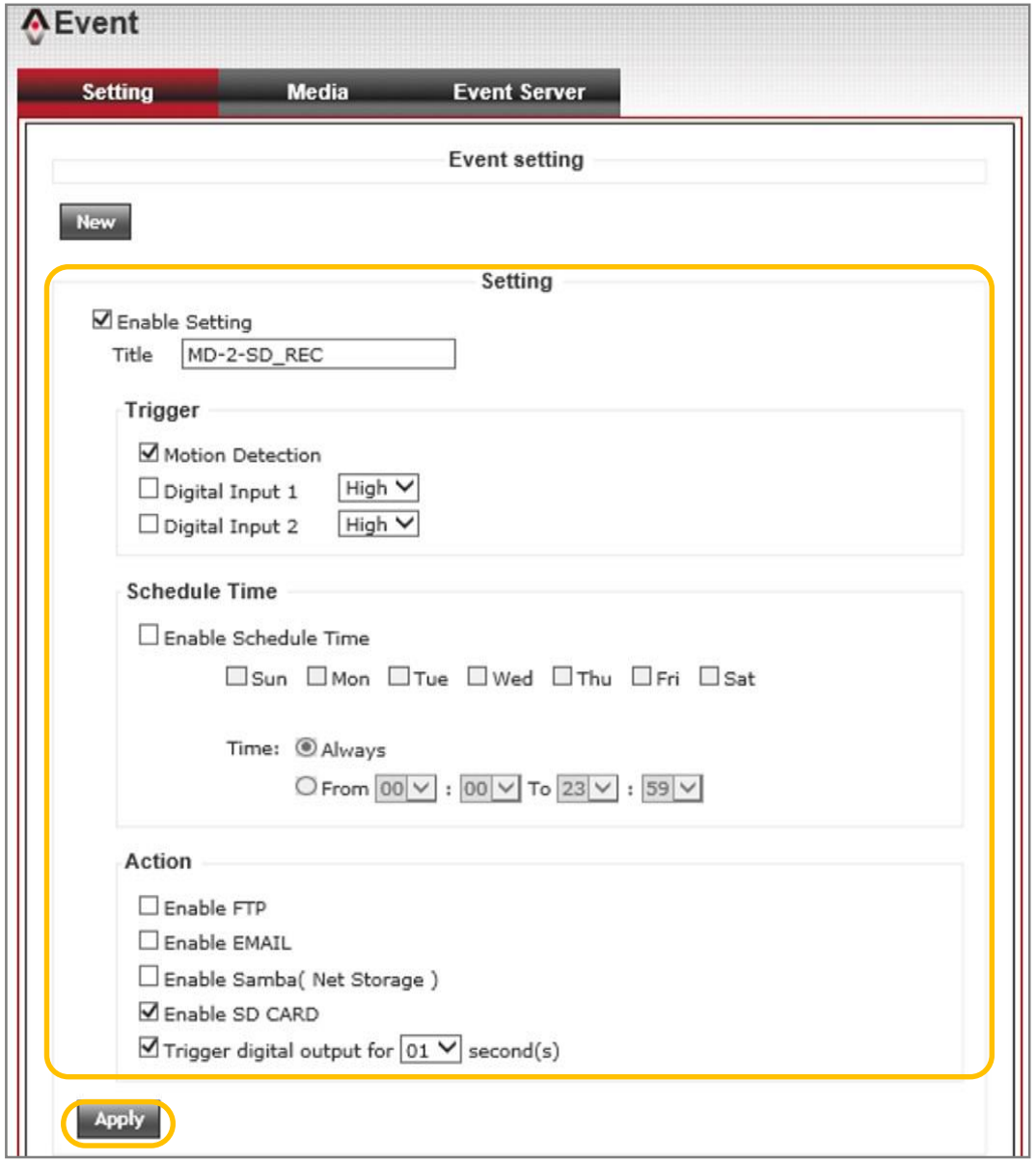
Select **Enable Schedule Time** and select all days from Sunday to Saturday. Then set the time as **Always.**

Step 6.

Select **Enable SD Card and Enable Digital Output** as your action. Also set your digital output time as 10 seconds.

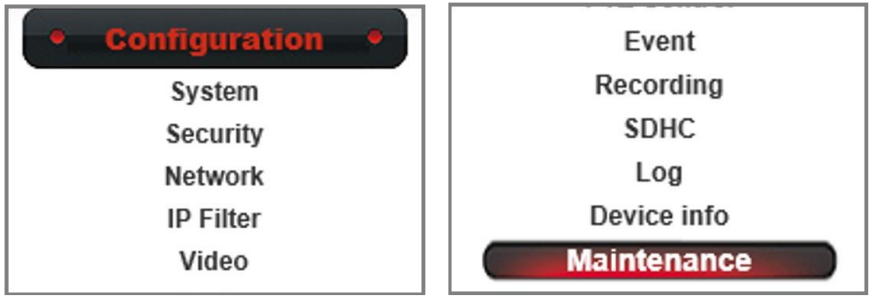
Step 7.

Press **Apply** button to complete setting.



5.6. Maintenance Settings

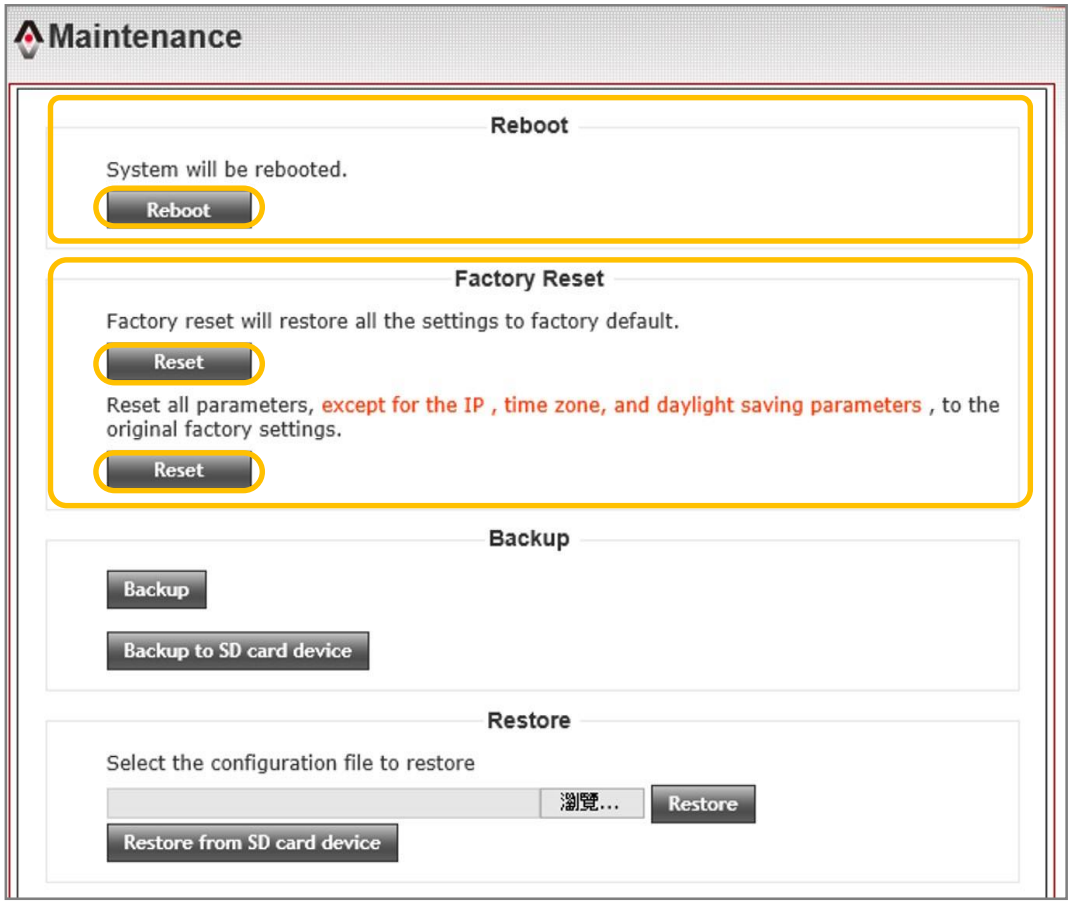
This maintenance page includes **Reboot, Factory Reset, Backup, Restore,** and **Upgrade** function.



5.6.1. Reboot

Reboot procedure:

When press **Reboot** button, it can remotely reboot the camera.



5.6.2. Factory reset

There are two ways of factory reset procedure. One is completely reset back to factory default setting. The other one is reset back to default setting except **IP address and time setting.**

Reset procedure:

When press **Reset** button, it can remotely reset the camera.

5.6.3. Backup

SMAX camera can back up your device setting to either save to your local computer or your SD card.

Backup procedure:

When press **Backup** button, SMAX camera will back up setting to your computer.

When press **Backup to SD card device** button, SMAX camera will back up setting to your SD card.

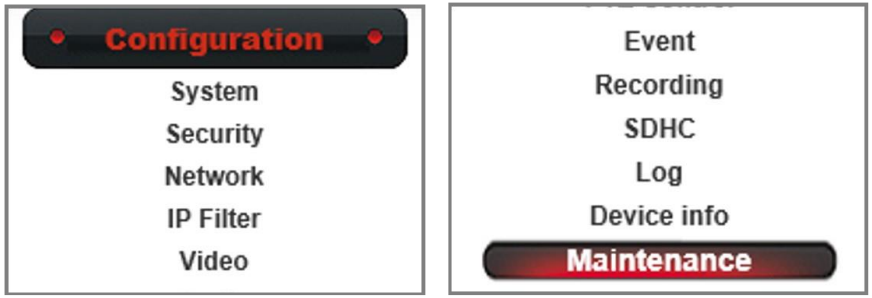
5.6.4. Restore

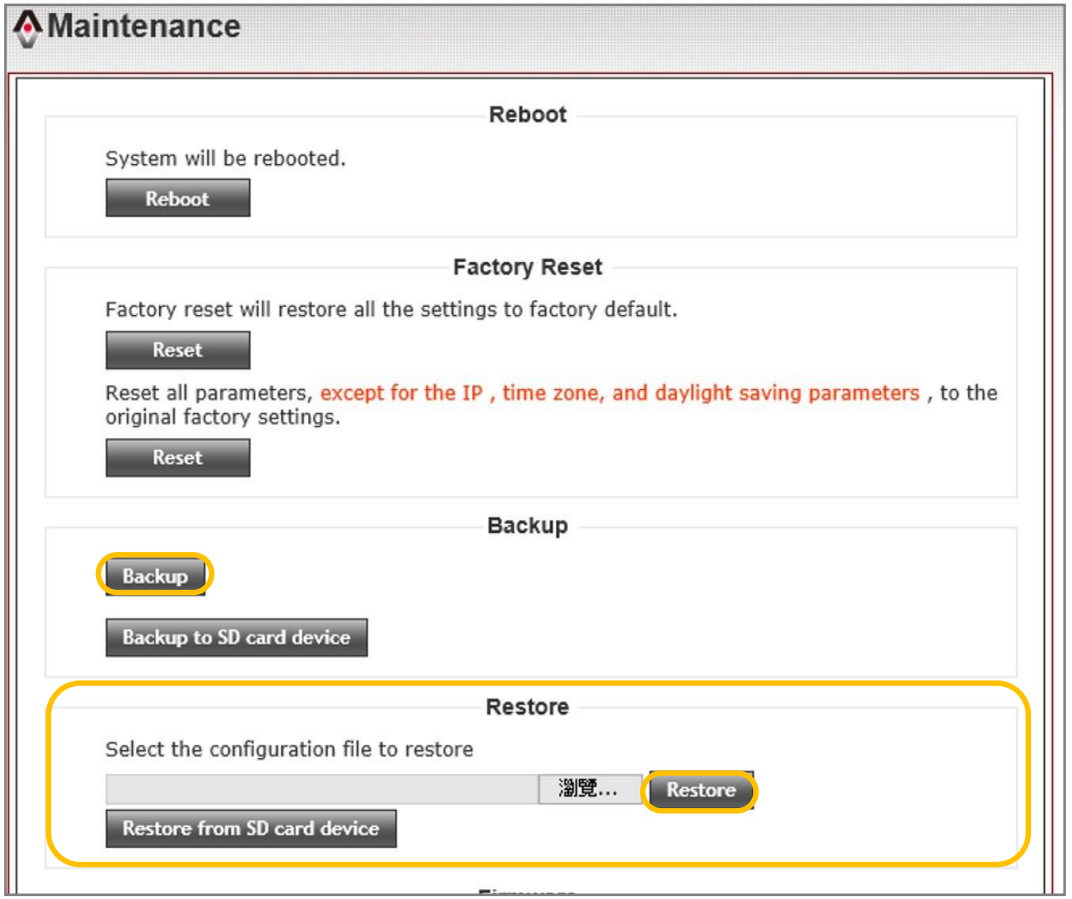
SMAX camera can also restore your back up setting from above procedure.

Restore procedure:

When restore your setting from the computer, press **Browse** button and select the backup file that you saved. Then press **Restore** button.

When restore your setting from the SD card, press **Restore from SD card device.**





5.6.5. Upgrade

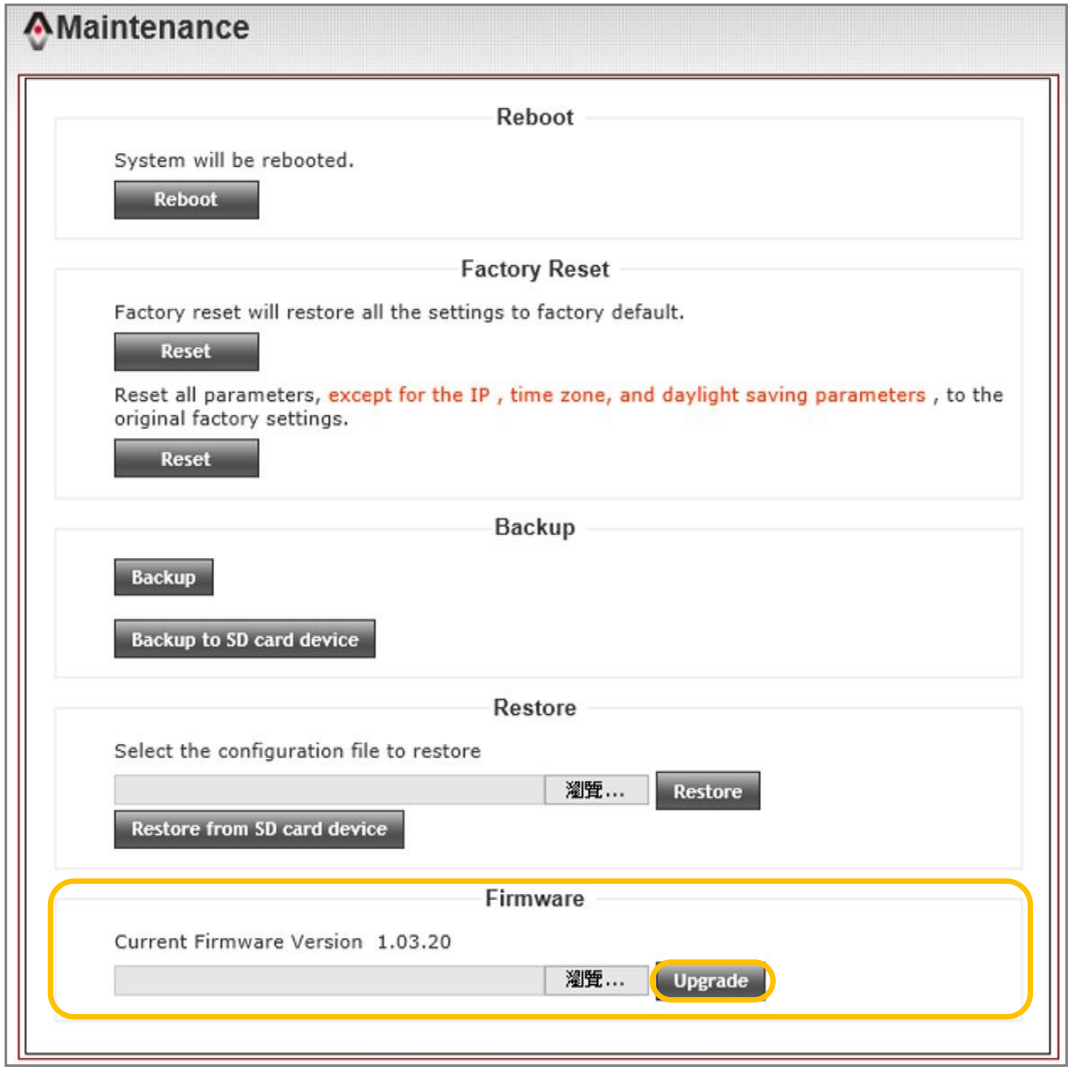
SMAX camera contain its original firmware version when first leave the factory. If for any reason, such as debug or new features, SMAX will put the latest firmware version on SMAX website for download and upgrade purpose.

Firmware upgrade procedure:

Please save your latest firmware version in the computer that connects to the network camera. Select the exact firmware once you click on **Browse** button. Then click **Upgrade** button to performs upgrade procedure. After upgrade procedure is complete, we suggest to perform a factory rest procedure for the system to check its completion.

Notification:

If above procedure cause abnormal to the camera, please press the reset button for 30 seconds after power on the camera. Once the camera back to default setting, repeat above upgrade procedure and make sure u have the latest correct firmware.



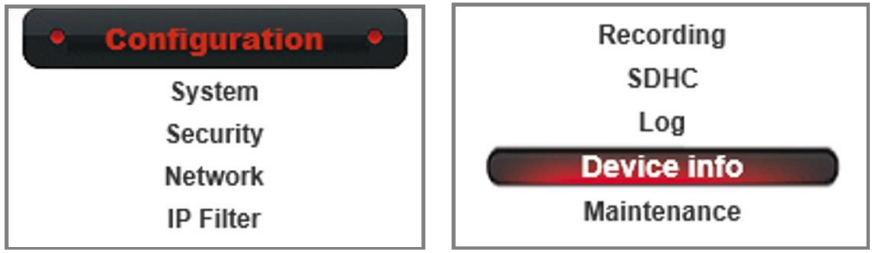
5.7. Camera Information

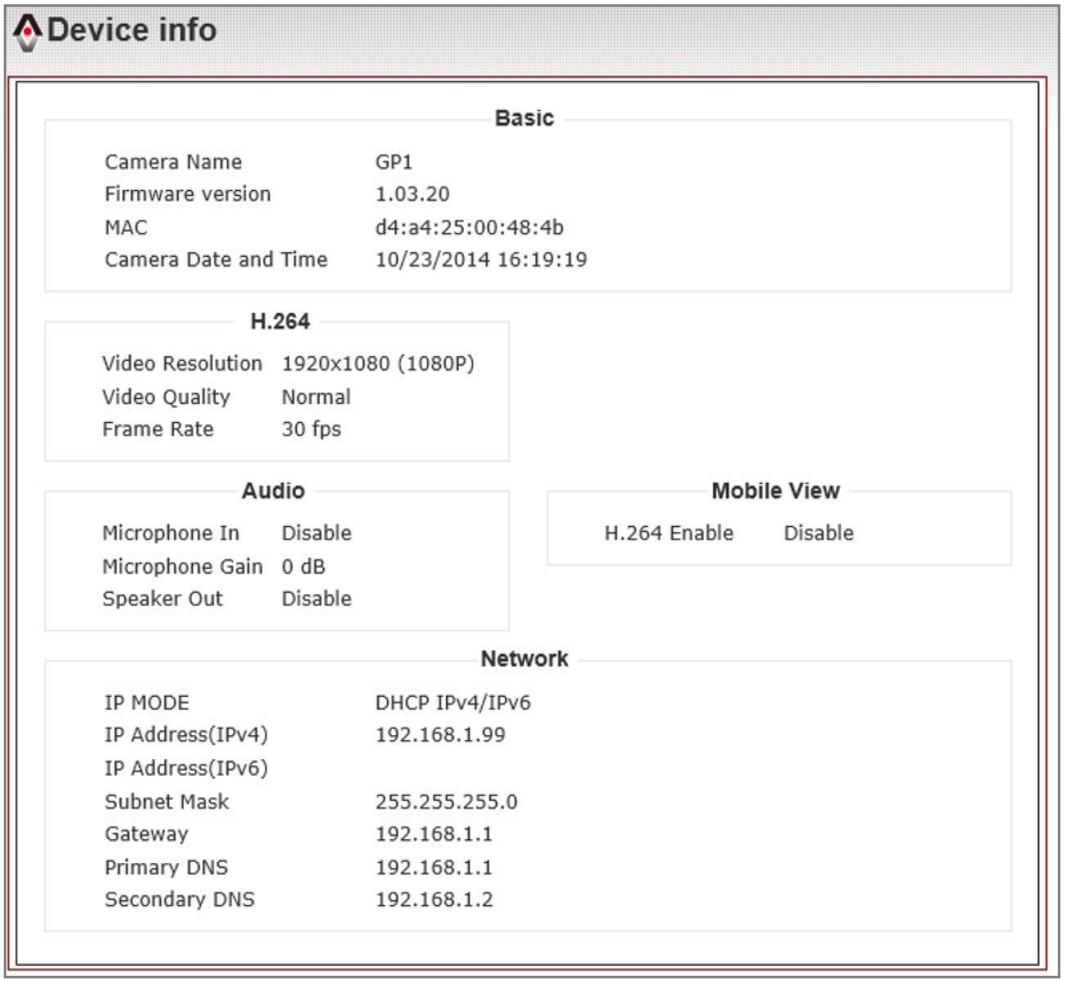
SMAX network camera provide two ways of checking information. One is for the device information, it includes the fundamental of network setting and basic function of the camera. The other one is system log, it records all the operation or event history.

5.7.1. Device information

Device info display procedure:

To access device info, click **Configuration** from the menu then click **Device Info** button. You can check the this camera information as shown in the picture from the right.

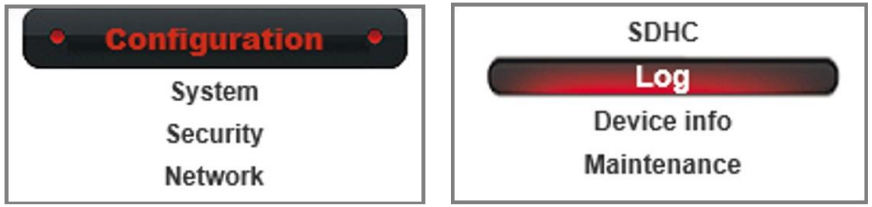


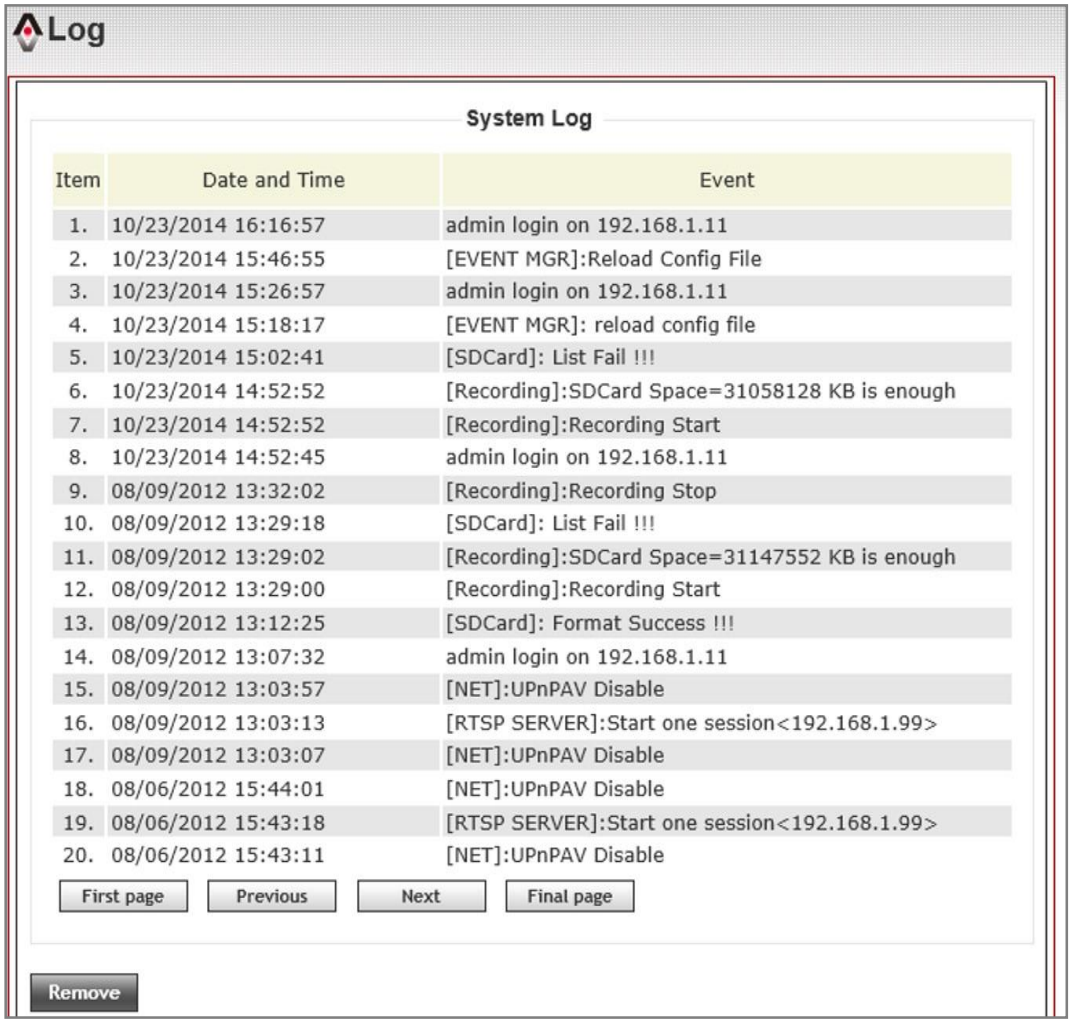


5.7.2. System Log

System log display procedure:

To access system log, click **Configuration** from the menu then click **Log** button. You can check the usage log of this camera as shown in the picture from the right.




Log
System Log
Item
Date and Time
Event
1. 10/23/2014 16:16:57 admin login on 192.168.1.11
2. 10/23/2014 15:46:55 [EVENT MGR]:Reload Config File
3. 10/23/2014 15:26:57 admin login on 192.168.1.11
4. 10/23/2014 15:18:17 [EVENT MGR]: reload config file
5. 10/23/2014 15:02:41 [SDCard]: List Fail !!!
6. 10/23/2014 14:52:52 [Recording]:SDCard Space=31058128 KB is enough
7. 10/23/2014 14:52:52 [Recording]:Recording Start
8. 10/23/2014 14:52:45 admin login on 192.168.1.11
9. 08/09/2012 13:32:02 [Recording]:Recording Stop
10. 08/09/2012 13:29:18 [SDCard]: List Fail !!!
11. 08/09/2012 13:29:02 [Recording]:SDCard Space=31147552 KB is enough
12. 08/09/2012 13:29:00 [Recording]:Recording Start
13. 08/09/2012 13:12:25 [SDCard]: Format Success !!!
14. 08/09/2012 13:07:32 admin login on 192.168.1.11
15. 08/09/2012 13:03:57 [NET]:UPnPAV Disable
16. 08/09/2012 13:03:13 [RTSP SERVER]:Start one session<192.168.1.99>
17. 08/09/2012 13:03:07 [NET]:UPnPAV Disable
18. 08/06/2012 15:44:01 [NET]:UPnPAV Disable
19. 08/06/2012 15:43:18 [RTSP SERVER]:Start one session<192.168.1.99>
20. 08/06/2012 15:43:11 [NET]:UPnPAV Disable
First page
Previous
Next
Final page
Remove

Appendix

6.1. URL

SMAX HTTP API

Version: 1.0.10

Style Convention

In URL syntax and in descriptions of CGI parameters, text in italics within angle brackets denotes content that should be replaced with either a value or a string. When replacing the text string, the angle brackets must also be replaced. URL syntax is written with the word "Syntax:" shown in bold face, followed by a box with the referred syntax, as shown below.

General CGI URL syntax and parameters

CGI URLs are written in lower-case. CGI parameters are written in lower-case and as one word. When the CGI request includes internal camera or video server parameters, the internal parameters must be written exactly as named in the camera or video server. For the POST method, the parameters must be included in the body of the HTTP request.

HTTP status Codes

The built-in Web server uses the standard HTTP status codes.

Appendix

6.1. URL

6.1.1. System

6.1.1.1. Get Device information

Syntax:

---

http://camera_ip:port/cgi/admin/serverreport.cgi

Example:

http://192.168.1.99/cgi/admin/serverreport.cgi

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\ns Server Name:XXXXX IP Address:XXXXXX MAC Address: XXXXXX Model Number:XXXXXX Product Number:XXXXX H/W Version:XXXXXX
OK	F/W Version:XXXXXX PT Support:Yes IO Trigger Support:Yes .....\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.1.2. Add, modify and delete users

Syntax:

---

http:// camera_ip:port /cgi/admin /pwdgrp.cgi?<parameter>=<value> [&<parameter>=<value>...]

---

with the following parameters and values for reference:

<parameter>=<value>	Value	Description
action=<string>	add, update, remove , get	add = create a new user account. update = change the information of specified parameters if the account exists.

6.1.1.2. Add, modify and delete users

<parameter>=<value>	Value	Description
action=<string>	add, update, remove , get	remove = remove an existing account if it exists. get = get a list of the users which belong to the specified group.
user=<string>	<string>	The user account name.
pwd=<string>	<string>	The unencrypted password of the account.
grp=<string>	admin, users, guest	An existing primary group name of the account.
<parameter name>=<string>	<string>	An existing primary group name of the account.

Example (a) : Create a new administrator account.

http:// camera_ip:port /cgi/admin /pwdgrp.cgi?action=add&user =paul&pwd=foo&grp=admin

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n OK\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

Example (b) : List groups and users.

http:// camera_ip:port /cgi/admin /pwdgrp.cgi?action=get

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n admin=”root,stanley,…”\r\n users=”jack,brian,…”\r\n guest=”angus,becky,…”\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.1.3. System date and time

Get or set the system date and time
Syntax:

---

http:// camera_ip:port /cgi/admin /date.cgi?action=<value> [&<parameter>=<value>...]

---

with the following parameters and values for reference:

<parameter>=<value>	Value	Description
action=<string>	get, set	get = get the current date and time. set = set the current date and time.
year=<string>	<string>	Current year.
month=<string>	<string>	Current month.
day=<string>	<string>	Current day.
hour=<string>	<string>	Current hour.
minute=<string>	<string>	Current minute.
second=<string>	<string>	**Current second.**
timezone=<string>	0-56	Specify the time zone for the new date and/or time. The device will translate the time into local time using whichever the time zone has been specified through the web configuration. If omitted the new date and/or time is assumed to be for local time. Note: The daylight saving time (DST) must be turned off, In this edition, the time mode doest not support to synchronize with an NTP server and with the computer time. Currently only GMT is considered valid input. The rest of the time zones are subject to future edition.

6.1.1.3. System date and time

Examples(a) : Get system date and time

http:// camera_ip:port r/cgi/admin/date.cgi?action=get

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n 2007/1/20 15:20:25\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

Examples(b) : Set system date and time

http:// camera_ip:port /cgi/admin /date.cgi?action=set&year=2005&month=4&day=3

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n ok\r\n

Return:

FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.2. Maintenance

6.1.2.1. Factory Default

Syntax:

---

http:// camera_ip:port /cgi/admin /factorydefault.cgi?mode=value

---

Example:

http:// camera_ip:port /cgi/admin /factorydefault.cgi?mode=1

with the following parameter and value for reference

<parameter>=<value>	Value	Description
mode=<string>	1, 2	1 : Reset all parameters to the original factory settings. 2 : Reset all parameters except the IP, time zone and daylight saving to the original factory settings.

6.1.2.2. Factory Default

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n OK\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.2.2. Firmware upgrade

Method: POST

Syntax:

---

http:// camera_ip:port /cgi/admin /firmwareupgrade.cgi

Example:

POST /cgi/admin/firmwareupgrade.cgi HTTP/1.1\r\n
Content-Type: multipart/form-data; boundary=AsCg5y\r\n
Content-Length: <content length>\r\n
\r\n
--AsCg5y\r\n
Content-Disposition: form-data; name="firmware.bin"; filename="firmware.bin"\r\n
Content-Type: application/octet-stream\r\n
\r\n
<firmware file content>
--AsCg5y\r\n

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n OK\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.2.3. Factory Default

Syntax:

---

http:// camera_ip:port /cgi/admin/restart.cgi

Example:

http:// camera_ip:port /cgi/admin/restart.cgi

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n OK\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.3. Video

6.1.3.1. MJPEG

Syntax:

---

http:// camera_ip:port /cgi/mjpg/mjpeg.cgi

Example:

http:// camera_ip:port /cgi/mjpg/mjpeg.cgi

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: multipart/ mixed;boundary=myboundary\r\n \r\n --myboundary\r\n Content-Length: <content length>\r\n \r\n <Payload Header> <Payload Data> --myboundary\r\n Content-Length: <content length>\r\n \r\n <Payload Header> <Payload Data> ….

6.1.3.1. MJPEG

Return:

FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

Payload Header Format:

Offset	Parameter	Size(Byte)	Description
0x00	Counter	4	payload counter.
0x04	Size	4	payload size.
0x08	Type	4	'J' for JPG, 'A' for audio, 0 for I frame, 1-30 for P frame.
0x0c	Second	4	Time stamp
0x10	Microsecond	4	Time stamp
0x14	Format	4	for audio Bit0-3 type 2: PCM 3: uLaw 4: AMR Bit4-5 sample size 0: 8bits 1: 16bits
0x14	Format	4	Bit6-8 sample rate 0: 8K 1: 11K 2: 24K 3: 44K 4: 48K Bit9-10 channel 1: 1 channel 2: 2 channels Bit11-31 packet length in minisecs.
0x14	Format	4	For Video: Bit0-3 type 0:JPEG 1:MPEG4 5:H.264 Bit4-7 scale 0: VGA 1: QVGA 2: QQVGA 3: Full D1 (NTSC) 4: Full D1 (PAL) 5: 720P 7: SXGA 8: 4CIF (NTSC) 9: CIF (NTSC) 10: QCIF (NTSC) 11: 4CIF (PAL) 12: CIF (PAL) 13: QCIF (PAL)

6.1.3.1. MJPEG

Payload Header Format:

Offset	Parameter	Size(Byte)	Description
0x14	Format	4	For Video: Bit0-3 type 15: (reference to Bit26-29) Bit8-13 frame rate (1-30) Bit14-21 IP ratio (1-30) Bit22-25 quality level (0 - 4) Bit26-29 scale (used while Bit4-7 is 15) 0: 960P 1: 1080P 2: UXGA 3: QXGA Bit30-31 reserved
0x18	Status	4	Bits 0 – 7: window1 motion level (0 – 255) Bits 8 – 15: window2 motion level (0 – 255) Bits 16 – 23: window3 motion level (0 – 255) Bit 24: trigger input 1 status (1:high/0:low) Bit 25: trigger input 2 status (1:high/0:low) Bit 26: trigger output 1 status (1:high/0:low) Bits 27 – 31: reserved

6.1.3.2. MPEG4/H.264

Syntax:

---

http:// camera_ip:port /cgi/mpeg/stream1.cgi

Example:

http:// camera_ip:port /cgi/ mpeg/stream1.cgi

Return:

The same as MJPEG except payload data is MPEG4/H264.

OK	HTTP/1.1 200 OK\r\n Content-Type: multipart/ mixed;boundary=myboundary\r\n \r\n --myboundary\r\n Content-Length: <content length>\r\n \r\n <Payload Header> <Payload Data> --myboundary\r\n Content-Length: <content length>\r\n \r\n <Payload Header> <Payload Data> ….

6.1.3.2. MPEG4/H.264

Return:

FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.4. Snapshot

Syntax:

---

http:// camera_ip:port /cgi/jpg/image.cgi

Example:

http:// camera_ip:port /cgi/jpg/image.cgi

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n <image data>\r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n Request failed: <error message>\r\n

6.1.5. Audio

6.1.5.1. Audio Query

Syntax:

---

http://<servername>/cgi/query/query.cgi?<parameter>

<parameter>=<value>	Value	Description
listen	0-2	Query the listening status (Server to PC) 0: free to connect 1: microphone not available 2: device is disable

6.1.5.2. Audio (Camera to PC)

Syntax:

---

http://<servername>/cgi/audio/audio.cgi? type=uLaw

Return:

succeed	HTTP/1.1 200 OK\r\n Content-Type: multipart/ mixed;boundary=myboundary\r\n \r\n --myboundary\r\n Content-Length: <content length>\r\n \r\n <Payload Header> <Payload Data> --myboundary\r\n Content-Length: <content length>\r\n \r\n <Payload Header> <Payload Data> ….
FAIL	HTTP/1.1 503 Service Not Available\r\n Content-Length: 0\r\n \r\n

6.1.5.3. Audio (Talk:PC to IP video device)

Returns a multipart audio stream. Open a IPPROTO_UDP socket and assign this socket to port 5432.

Audio support u-Law Data only.

Payload Format:

Header (12Bytes)	u-Law Data (1024 Bytes)

Header Content:

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5
0x80	0x80	0x10	0x8c	0x00	0x30

Byte6	Byte7	Byte8	Byte9	Byte10	Byte11
0x56	0x9c	0xab	0x45	0xa2	0x07

6.1.6. Focus & Zoom for Motor Lens

(for GV1、GU1 only)

Focus & Zoom for Motor Lens :

Send focus & zoom control command to IP Camera which with Motor-Lens.

Syntax:

---

http://camera_ip:port/cgi/fz/focuszoomctl.cgi?<parameter><=value>

---

with the following parameters and values for reference:

Parameter	Value	Description
focusminus		. Focus motor lens backward 1 step
focusplus		Focus motor lens forward 1 step
movezoom	0 ~ 6	Move zoom motor lens to index: 0-6
smartfocusscan		Do auto focus quickly
fzisbusy		Check the motor lens is busy or not
getmotorcuspos		Get current position both of focus & zoom motor lens

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n <Result> \r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n

Example: (Server sends setup to network camera.)

[Focus Step Forward]

http://192.168.101.102:80/cgi/fz /focuszoomctl.cgi?focusplus

Example: (Server sends setup to network camera.)

[Focus Step backward]

http://192.168.101.102:80/cgi/f /focuszoomctl.cgi?focusminus

Example: (Server sends setup to network camera.)

[movezoom]

http://192.168.101.102:80/cgi/fz /focuszoomctl.cgi?movezoom=6

6.1.6. Focus & Zoom for Motor Lens
(for GV1、GU1 only)

Example: (Server sends setup to network camera.)
[Smart Focus]
http://192.168.101.102:80/cgi/fz
/focuszoomctl.cgi?smartfocusscan

Example: (Server sends setup to network camera.)
[Check Is Busy]
http://192.168.101.102:80/cgi/fz
/focuszoomctl.cgi?fzisbusy

Example: (Server sends setup to network camera.)
[Current Position]
http://192.168.101.102:80/cgi/fz
/focuszoomctl.cgi?getmotorcurpos

Return:

[Current Zoom Index Of Position] | [Current Focus Index Of Position]
Ex: 6|55

6.1.7. SD Card Management

Get SD Card Status and search result list.
Syntax:

---

http://camera_ip:port/sdcard.cgi?action=<action_parameter>&<parmameter>=<value>&

---

with the following parameters and values for reference:

action_Parameter	Value	Description
status		Get SD Card Status
space		Get SD Card Space
format		Format SD Card
list		SD Card File List.
download		Download File.
delete		Delete File

Parameter	Value	Description
key	name	List order by key value
order	ascend	List order by order value
dir	record, event	List working folder
ch	1	List channel
page	1, 2, 3, …	List Page Index

6.1.7. SD Card Management

Parameter	Value	Description
sTime	yyyy-mm-dd-hh-mm-ss	List Start Time
eTime	yyyy-mm-dd-hh-mm-ss	List End Time
fname	filename	Download/Delete File name

Return:

OK	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n <Result> \r\n
FAIL	HTTP/1.1 200 OK\r\n Content-Type: text/plain\r\n Content-Length: <content length>\r\n \r\n

Example: (Get SD Card Status.)

[Get SD Card Status]

http://192.168.101.102:80/sdcard.cgi?action=status&

Return:

[Status]
1 : SD Card is available
0 : SD Card is not available
Ex: 1

Example: (Get SD Card Status.)

[Get SD Card Space]

http://192.168.101.102:80/sdcard.cgi?action=space&

Return:

[Total Space(KB)] | [Used Space(KB)] | [Free Space(KB)]
Ex: 30729552|30179056|550496

Example: (Format SD Card.)

[Format SD Card]

http://192.168.101.102:80/sdcard.cgi?action=format&

Return:

[Result]
1 : SD Card Format success
0 : SD Card Format fail
Ex: 1

6.1.7. SD Card Management

Example: (Get File List.)

[SD Card File List]

http://192.168.101.102:80/sdcard.cgi?action=list&key=name&order=ascend&dir=record&ch=1&page=1&sTime=2010-02-22-00-00-00&eTime=2020-03-21-00-00-00

Return:

[Path],[Total File],[Total Page],[List Page],<File name|File Time|File Size(KB)>,…
Ex:
/tmp/mmc_dir/Backup/,2,1,1,SICPT501U-01082014-200248.avi|Thu Jan 9 12:02:48 2014|10808,SICPT501U-01082014-201533.avi|Thu Jan 9 12:15:33 2014 |10815

Example: (Download File.)

[Download File]

http://192.168.101.102:80/sdcard.cgi?action=download&dir=record&fname=5MP_IP_BOX-03212012-142806.avi&

Return:

None

Example: (Delete File.)

[Delete File]

http://192.168.101.102:80/sdcard.cgi?action=delete&dir=record&fname=5MP_IP_BOX-03212012-142806.avi&

Return:

[Result]
1 : File Delete success
0 : File Delete fail
Ex: 1

6.2. Technical Specifications

System	
CPU	TI Multimedia SoC
Flash / RAM	32MB / 128MB

Image Sensor	
Max. Resolution	1920(H) x 1080(V)
Format	1/2.5"
Effective Pixels	2056(H) x 1536(V)

Lens	
Focal Length	f=3.6mm
Iris (F No.)	F1.8
Angle of View	H: 69.55°; V:37.44°; D:75.38°

Day & Night	
Mechanical IRCF(ICR)	Yes (Built-in Removable IR-cut filter)
IR Distance (Max.)	20M, 850nm

Min. Illuminators	
Color Mode	0.05 Lux
B/W Mode	0 Lux (IR On)

Mechanical Spec	
Dimensions, Weight	Ø 110 mm x 80 mm (L), Net 500g
Pan-n-Tilt	Pan: 350° ; Tilt:30~90°
Weatherproof	IP66
Vandal proof	IK8

Video Codec	
H.264	30fps @ 1920 x 1080 (Max. 1080P)
MPEG-4	20fps @ 1920 x 1080 (Max. 1080P)
MJPEG	30fps @ 720 x 480 (Max. D1)
Codec Quality	H.264: 5 Levels (Max. 1080P)
	Bit Rate (Max. 6Mbps @ 1080P)
	MPEG-4: 5Levels (Max. 1080P)

Interface	
Local Storage	SD Slot x 1
	Supported SD/SDHC, Max. 32GB
Digital In / Digital Out	Digital Input x 1 / Digital Output x 1
Audio in/out	Two-way, Supports G.711μ-Law RCA-In x 1 / RCA-Out x 1 (3.5mm)
Network	Fast Ethernet (10/100Mbps, RJ-45 port)
Reset Button	Push Button

Protocols
IPv4, Ipv6, TCP/IP, UDP, HTTP, HTTPs, RTP, RTSP, RTCP
ICMP, DHCP, NTP, DNS, DDNS, SMTP, FTP, PPPoE, QoS
ToS, DSCP, UPnP, Samba, Bonjour

Power Supply	
PoE / DC Power	PoE (IEEE802.3af) / DC12V
Power Consumption	PoE, Max. 6.6W / DC12V, Max. 4.3W

Environment	
Operating Temp.	-10°C~55°C (-4°F~131°F)
Humidity	20%~90% RH
Storage Temp.	-20°C~60°C (-4°F~140°F)

6.2. Technical Specifications

Event and Alarm Operation

Alarm Trigger	Video Motion Detection, Digital Input (Always / Schedule setting)
Event Action	FTP, Email, SD Card Rec., NAS Rec., Digital Output
	One Snapshot / Rec. Video File
Alarm Rec. Buffer	5 sec Pre-alarm / 5 sec post-alarm
	Up to 3MB

Accessory

Recording Software	64-CH VMS Software (VMS-64)
Installation Guide	Quick Installation Guide, Manual CD
Kit	Screw Kit

Certificate & Warranty

CE class A , FCC class A; Warranty 36 Months

Special Features

Motion Detection	3 Scalable Windows
Privacy Mask	3 Scalable Windows
Continue Recording	Remote Client Recording
	SD Card Recording
	Remote Samba (/NAS) Recording
Exposure Management	Full View / BLC (Metering Area)
	AWB, AES, AGC
Image Settings	Brightness, Contrast, Sharpness, Saturation Adjustable
Shutter Time	Auto / Menu Mode
	1/15~1/25000sec (Image Sensor) 1/15~1/10000sec (Menu Mode)
Mirror	Vertical, Horizontal
Onvif	Yes (Support Onvif Profile S)
Digital Zoom	Up to 10 x Digital Zoom
Network Management	IP Filter, QoS (DSCP)
Time Management	Manual Time Setting
	Time Server & NTP Support
	Real Time Clock
User Access Control	Multi-Level User Access
	Up to 5 Clients
Multiple Streaming	Max. 3 Streams
Configuration File	Backup to PC / Backup to SD card
Web Browser	Internet Explorer 9.x above
Operating System	Suggest Windows 7/8/8.1 above
Language	Supports multiple languages

6.3. Onvif Supports List

6.3.1. NVR

NVR Brand	NVR Models	NVR Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
SMAX	VR1	V1.1	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AV1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AP1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GD1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GV1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GB1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GP1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GP2	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			SU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK

6.3. Onvif Supports List

6.3.1. NVR

NVR Brand	NVR Models	NVR Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card recording	PTZ
QNAP /VioStor	VS-xxxxx Products	QVR V5.0.0 /V4.3.x	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.1. NVR

NVR Brand	NVR Models	NVR Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
Synology	RSxxxx DSxxxx Products	DSM V5.0xx	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.1. NVR

NVR Brand	NVR Models	NVR Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
HIKVISION	DS7600 DS7700 DS8600 DS9600 Products		AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.2. VMS

VMS Brand	VMS Models	VMS Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
SMAX	SMAX VMS	V1.1x	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AV1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AP1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GD1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GV1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GB1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GP1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GP2	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			SU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK

6.3. Onvif Supports List

6.3.2. VMS

VMS Brand	VMS Models	VMS Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
axxonsoft	NEXT Intellect Enterprise Products		AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.2. VMS

VMS Brand	VMS Models	VMS Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
axxonsoft	NEXT Intellect Enterprise Products		AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.2. VMS

VMS Brand	VMS Models	VMS Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
Aimetis	Symphony Products	V6.11 V6.12	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.2. VMS

VMS Brand	VMS Models	VMS Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
NUUO	Crystal Products		AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.2. VMS

VMS Brand	VMS Models	VMS Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
VIVOTEK	VAST Products	v1.8.x	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			AP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GD1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GV1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GU1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GB1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP1	V1.03.20x	Yes	OK	OK	--	--	--	--
			GP2	V1.03.20x	Yes	OK	OK	--	--	--	--
			SU1	V1.03.20x	Yes	OK	OK	--	--	--	--

6.3. Onvif Supports List

6.3.3. CMS

CMS Brand	CMS Models	CSM Version	SMAX Camera								
			Model	FW ver.	NVR Onvif	Live View	Playback	Motion Detection	DIDO	SD Card Recording	PTZ
SMAX	SAMX CMS512	V1.1x	AC1	V1.03.20x	--	--	--	--	--	--	--
			AD1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AV1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			AP1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GD1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GV1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GB1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GP1	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			GP2	V1.03.20x	--	OK	OK	OK	OK	OK	OK
			SU1	V1.03.20x	--	OK	OK	OK	OK	OK	OK

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